PARSONS BRINCKERHOFF

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NANTYCAWS LANDFILL SITE, ANNUAL COMPLIANCE REPORT 2014

CP3735PB

CWM Environmental Ltd

Nantycaws Landfill Site, Annual Compliance Report 2014 Environmental Permit No. CP3735PB

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SECTION 1

INTRODUCTION

1 INTRODUCTION

1.1 Terms of Reference

1.1.1 This report has been produced by Parsons Brinckerhoff on behalf of CWM Environmental Ltd and comprises the 2014 Annual Compliance Report for the Nantycaws Landfill Site, Carmarthenshire.

1.2 Background

1.2.1 Nantycaws Landfill Site is situated approximately 8km east of Carmarthen and 1.5km south east of Nantycaws in a rural setting. It is operated by CWM Environmental Ltd and only accepts non-hazardous waste.

1.2.2 The site comprises seven cells, of which Cells 1 to 5 (corresponding to Phases 1 and 2) have been completed and capped. Phase 3 (Cell 6 and Cell 7) is currently operational. The landfill has been extended northwards to create a further three cells which will be filled progressively. The configuration of the cells is shown in Figure 1.

1.2.3 The site has the following monitoring infrastructure:

- 16 combined groundwater and gas monitoring boreholes;
- 5 under-drainage monitoring points;
- 10 gas monitoring wells;
- 7 leachate monitoring points; and
- 7 surface water monitoring locations.

1.2.4 The monitoring points are shown in Figure 1.

1.3 Scope of Works

1.3.1 This report has been produced in accordance with points (a) and (j) as listed in Section 4.2.1 of Environmental Permit No. CP3735PB and its subsequent variations, hereafter referred to as “the Site Permit”. Specific reference has been made to the requirements within Compliance Assessment Report (CAR) reference 4547 from the Environment Agency Wales (EAW), dated 1st May 2012.

SECTION 2

SITE SETTING

2 SITE SETTING

2.1 Topography and Drainage

2.1.1 The site lies within the catchment of the Afon-y-Bantwen, which is approximately 1.2km from the southern margin of the site at its closest extent. The site is effectively a land raise and was constructed on gentle southerly sloping land with approximate ground elevations of between 140m AOD in the north, and 125m AOD in the south.

2.1.2 Two small surface watercourses, little more than ditches, are present along the south eastern and south western margins of the site, both of which flow into the Afon-y-Bantwen. These receive surface runoff from the site and are monitored on a monthly basis. The streams are shown on Figure 1.

2.2 Geology and Hydrogeology

2.2.1 The bedrock beneath the site comprises the Old Red Sandstone Formation (ORS), which is of Devonian age. This unit forms the main water-bearing strata beneath the site and is classified as a Secondary Aquifer according to the published 1:100,000 Groundwater Vulnerability Map (Sheet 35). The waters within the ORS can be anoxic and as a result often have elevated concentrations of certain transition metals, particularly dissolved iron.

2.2.2 The ORS is overlain in places by unconsolidated drift deposits of variable thickness. These predominantly comprise stiff glacial till (formerly Boulder Clay), however some water-bearing granular horizons are present, possibly representing esker deposits. These are laterally discontinuous but may be hydraulically linked to the underlying Devonian Bedrock.

2.2.3 The site is located within a groundwater discharge area which provides baseflow to the adjacent surface water features.

2.3 Landfill Construction

2.3.1 Construction of the landfill has progressed in three phases, comprising six cells, as follows:

- Phase 1 (Cell 1);
- Phase 2 (Cells 2 to 5 inclusive); and
- Phase 3 (Cells 6 and 7).

2.3.2 Phases 1 and 2 have been completed and capped. Phase 3 is currently operational.

2.3.3 Phase 1 was constructed more than 20 years ago. It was not constructed as a fully contained facility and has no engineered liner. This part of the site is a ‘closed’ landfill and is subject to a different environmental permit.

2.3.4 Phases 2 and 3 of Nantycaws Landfill Site are contained by engineered linings. The base and sides of Phase 2 consist of a high density polyethylene (HDPE) geocomposite liner (GCL), i.e. an artificial sealing liner. This is underlain by an engineered geological barrier comprising reworked, locally sourced glacial material, approximately 1m thick.

2.3.5 Phase 3 has a composite liner comprising 'Trisoplast' (9cm of bentonite-enriched sand) underlain by an engineered geological barrier 0.5m in thickness, also formed from reworked glacial till.

2.3.6 A groundwater drainage system was incorporated below the base of Phase 1 and below the GCL of Phases 2 and 3. This comprises a series of collection drains which drain under gravity to the south, with finger drains extending to individual seepages that were present within the undeveloped ground. This system currently discharges to the surface water ditches.

2.3.7 Groundwater levels around the site are monitored on a monthly frequency and confirm a general southerly movement of groundwater in the vicinity of the site.

2.4 Leachate Management

2.4.1 All leachate from the three phases is pumped to a Leachate Holding Lagoon to the north of Cell 1, where is it aerated before being tankered off-site for disposal. An automated leachate extraction system was installed within the leachate sumps and the retrofitted in-waste monitoring wells in Cells 1 – 5 (M1A to M4B and LMP5A and 5B), which was commissioned in January 2013. The system uses submersible pumps, which are triggered by float switches, positioned at pre-determined levels.

2.4.2 Leachate wells are monitored at sumps installed into each cell. It is understood that during construction of the early phases of the site, Cell 1 was connected to Cell 2 via a pipe and similarly that Cell 3 is now hydraulically connected to Cell 4. These features are illustrated on Figure 1.

SECTION 3

MONITORING REQUIREMENTS

3 MONITORING REQUIREMENTS

3.1 Permit Requirement

3.1.1 The monitoring considered in this report was undertaken by CWM Environmental Ltd, in accordance with the requirements in Section 3.6.1 of the Site Permit, detailed within the site Environmental Monitoring and Management Plan (EMMP)[1]. The Site Permit makes reference to 'trigger levels' and 'control levels' (hereafter referred to as compliance limits) derived from a Hydrogeological Risk Assessment (HRA) prepared for the site in 2006 [2]. The Permit was subsequently updated by Permit Variation No. EA/EPR/CP3735PB/V004 following submission and agreement of improvement conditions to EAW. This resulted in a change to trigger concentrations for diethylphalate and, mecoprop [3][4]. This report refers to 'compliance limits' as the greater of the trigger and control concentrations.

3.2 Leachate

3.2.1 The requirements for monitoring of leachates included within the Site Permit are summarised in Table 3.1. Monitoring is required at seven locations, with different suites required at monthly, quarterly and annual frequencies. The locations of the monitoring points are shown on Figure 1. The leachate pond monitoring point was decommissioned in June 2014 and therefore no results are reported.

3.2.2 Compliance limits specific to individual cells are included within the HRA, and the relevant determinands are highlighted in bold text within Table 3.1.

Table 3.1: Leachate Monitoring Undertaken During 2014

Determinand	Monitoring Frequency	Monitoring Points
Ammoniacal Nitrogen	Monthly	Cell sump 1 and 2, cell sump 3 and 4, cell sump 5, cell sump 6, cell sump 7 and leachate holding lagoon
Chloride	Monthly	
Electrical conductivity	Monthly	
Depth of leachate above the base of the liner	Monthly	
Mecoprop (pesticide)	Quarterly	
Diethylphthalate	Quarterly	
Dichloromethane	Quarterly	
4–methlyphenol	Quarterly	
Cadmium	Quarterly	
Total alkalinity	Quarterly	
Magnesium	Quarterly	

[1] Parsons Brinckerhoff (2012). Nantycaws Landfill Site Environmental Monitoring and Management Plan. Permit No. CP3735PB. Issue No. 4, March 2012.
[2] SLR (2006). Nantycaws Landfill Site. Hydrogeological Risk Assessment. SLR Report Ref 407.0610.00011/HRA, May 2006.
[3] SLR (2008). Nantycaws Landfill Site. Application for a Permit Variation, Reference DP3134XD A(1)PPC Installation. Appendix SS3: Hydrogeological Modelling Report. SLR Report Ref 407.0610.00011, June 2008.
[4] Environment Agency determination of Variation Application EPR/CP3735PB/V004, 23/09/2009.

Determinand	Monitoring Frequency	Monitoring Points
Potassium	Quarterly	
Total Sulphate	Quarterly	
Calcium	Quarterly	
Sodium	Quarterly	
Biological Oxygen Demand	Quarterly	
Chemical Oxygen Demand	Quarterly	
Total organic carbon	Quarterly	
Total oxidised nitrogen	Quarterly	
Manganese	Quarterly	
Iron	Quarterly	
Chromium	Quarterly	
Copper	Quarterly	
Lead	Quarterly	
Zinc	Quarterly	
Nickel	Quarterly	
Monitor Point Base	Annually	
All List 1 Substances	Annually	

3.3 Surface Water

The requirements for monitoring of surface waters included within the Site Permit are summarised in Table 3.2. The internal drainage ditches are monitored in accordance with Table S4.10 of the Site Permit. Compliance limits are only set for the determinands highlighted in bold in Table 3.2 at monitoring locations SW205 and SW206, shown on Figure 1.

Table 3.2: Surface Water Monitoring Undertaken During 2014

Determinand	Monitoring Frequency	Monitoring Points
Ammoniacal Nitrogen	Monthly	SW201, SW202, SW203, SW204, **SW205**, **SW206,** SW207.
Chloride	Monthly	
Suspended Solids	Monthly	
pH	Monthly	
Temperature	Monthly	
Electrical Conductivity	Monthly	
Water Depth	Monthly	
Mecoprop	Quarterly	
Diethyphthalate	Quarterly	
Dichlomethane	Quarterly	
4-Methylphenol	Quarterly	

Determinand	Monitoring Frequency	Monitoring Points
Cadmium	Quarterly	
Total Alkalinity	Quarterly	
Magnesium	Quarterly	
Potassium	Quarterly	
Total Sulphate	Quarterly	
Calcium	Quarterly	
Sodium	Quarterly	
Total Oxidised Nitrogen	Quarterly	
Total Organic Carbon	Quarterly	
Manganese	Quarterly	
Iron	Quarterly	
Chromium	Quarterly	
Copper	Quarterly	
Lead	Quarterly	
Zinc	Quarterly	
Nickel	Quarterly	
Ionic Balance	Quarterly	
List 1 Screen	Annually	

3.4 Groundwater

3.4.1 The requirements for monitoring groundwaters within the Site Permit are summarised in Table 3.3. Monitoring is required at 21 locations, comprising 5 locations within the under-drainage system and 16 perimeter groundwater monitoring boreholes. As with the leachate, different suites are required at monthly, quarterly and annual frequencies. The monitoring points are shown on Figure 1.

3.4.2 All groundwater monitoring wells are sampled at the site in accordance with Table S4.11 of the Site Permit. The Site Permit specifies compliance limits in Table S4.5 at 12 locations. The relevant determinands are highlighted in bold in Table 3.3.

Table 3 3: Groundwater Monitoring Undertaken During 2014

Determinand	Monitoring Frequency	Monitoring Points
Ammoniacal Nitrogen as N	Monthly	**NACW203, NACW205, NACW208, BH5/02, NACW212**, NACW219, **NACW227, NACW228**, NACW229, BH3/2, BH3/3, **BH3/4,** BH3/5, BH3/6, BH3/8, BH3/9, **UD1, UD2, UD3, UD4**, UD5
Chloride	Monthly	
Electrical Conductivity	Monthly	
Water Level	Monthly	
Monitoring Point Base	Quarterly	
Mecoprop (pesticide)	Quarterly	
Diethylphthalate	Quarterly	
Dichloromethane	Quarterly	

4-methylphenol	Quarterly	
Cadmium	Quarterly	
Total Alkalinity	Quarterly	
Magnesium	Quarterly	
Potassium	Quarterly	
Total Sulphate	Quarterly	
Calcium	Quarterly	
Sodium	Quarterly	
Nitrates	Quarterly	
Nitrites	Quarterly	
Total Oxidised Nitrogen	Quarterly	
Manganese	Quarterly	
Iron	Quarterly	
Chromium	Quarterly	
Copper	Quarterly	
Lead	Quarterly	
Zinc	Quarterly	
Nickel	Quarterly	
List 1 Screen	Annually	

3.5 Gas Monitoring

3.5.1 The requirements for monitoring of landfill gases included within the Site Permit are summarised in Table 3.4. All in-waste boreholes are connected to the gas extraction system at the site. This report only contains the results of monitoring undertaken within the perimeter wells identified in Table 3.4. The locations of the 26 gas monitoring points are shown in Figure 1.

Table 3.4. Gas Monitoring Undertaken During 2014

Determinand	Monitoring Frequency	Monitoring Points
Methane	Monthly	NACW201, NACW202, NACW203, NACW204, NACW205, BH5/02, NACW212, NACW213, NACW215, NACW216, NACW219, NACW220, NACW227, NACW228, NACW229, NACW230, BH3/1, BH3/2, BH3/3, BH3/4, BH3/5, BH3/6, BH3/8, BH3/9, BH3/10, BH3/11,.
Carbon Dioxide	Monthly	
Oxygen	Monthly	
Atmospheric Pressure	Monthly	
Differential Pressure	Monthly	
Temperature	Monthly	
Gas Flow Rate	Monthly	
Trace Gas Analysis	Annually	

SECTION 4

MONITORING RESULTS

4 MONITORING RESULTS

4.1 Introduction

4.1.1 This section presents the results of the monitoring undertaken during 2014. Particular attention is given to compliance with the compliance limits within the Site Permit, where applicable, and to data trends by comparison with the historic record obtained since 2011, which are illustrated by Figures 2-19. A summary of the compliance issues is provided at the end of the section.

4.1.2 The compliance monitoring is based on the 'monthly' and 'quarterly' monitoring suites, the results of which are shown on the laboratory certificates, included within Appendix A. The extended suites undertaken in the annual monitoring are summarised in Appendix B and the laboratory analysis for these included within Appendix C.

4.2 Leachate Monitoring

Leachate Levels

4.2.1 The monitoring of leachate levels on a monthly frequency, in order to determine the depth of leachate above the landfill liner is a requirement of Table S4.1 within the Site Permit, as shown in Table 3.1.

4.2.2 The monitored leachate levels obtained during 2014 are summarised in Table 4.1 and shown graphically in Figure 2, which also shows historic data from the beginning of 2011 and the compliance limits for each of the sumps. Leachate heads were all well below their respective compliance limits with leachate heads remaining stable for the majority of the year, with a slight increase in levels apparent towards the end of 2014. There were no recorded exceedences of leachate heads in any of the leachate sumps during 2014. The mean head recorded across all sumps during 2014 was 0.63m.

4.2.3 In-waste monitoring wells M1A to M4B and LMP5A and 5B were retrofitted into Cells 1 - 5 respectively. Given the absence of target pads at these locations, these boreholes were drilled to approximately 2m above the landfill base to avoid harming the landfill liner system and therefore cannot be used for compliance purposes. The heads above the base of the boreholes monitored within these locations during 2014 was between 0.1m and 1.03m, greatest in M1A and M3B. The data obtained since the start of 2011 are summarised in Figure 3 and show a stable trend. Since January 2013, a notable reduction in leachate heads is apparent following the installation of the automatic leachate extraction system.

4.2.4 The head data shown in Figures 2 and 3 indicate that the automated leachate extraction system was effective in maintaining reduced leachate heads across the site during 2014.

Leachate Chemistry - Monthly and Quarterly Suites

4.2.5 The leachate compliance monitoring is summarised in Table 4.2 and shown graphically in Figures 4-10. The results are shown on the laboratory certificates in Appendices A and C.

4.2.6 The leachate pond monitoring point was decommissioned in June 2014 and therefore the results of monitoring only include data obtained up to that time.

Ammoniacal Nitrogen and Chloride

4.2.7 The time series of ammoniacal nitrogen and chloride concentrations recorded within the site leachates since 2011 are shown in Figures 4 and 5 respectively. No exceedances of the compliance limits for these parameters, of 3,600mg/l for ammoniacal nitrogen and 19,000mg/l, for chloride, were recorded.

4.2.8 Recorded concentrations of ammoniacal nitrogen (Figure 4) varied between 458mg/l in Cell 4 Sump up to a maximum of 2,760 mg/l in Cell 1-2 Sump. Cell 1-2 Sump showed an increasing trend in the first half of the year, before decreasing at the end of 2014, similar to Cell 6 Sump. A general reduction in ammoniacal nitrogen concentrations within the leachate was apparent during 2014.

4.2.9 Recorded chloride concentrations (Figure 5) varied between 706mg/l (in 7 Sump within Phase 3) up to a maximum of 12,100 mg/l in Cell 1-2 Sump. Again a slight increasing trend was apparent in the first half of the year, particularly in Cell1-2 Sump, which reduced at the end of 2014 at all locations, as noted with ammoniacal nitrogen. A general periodicity is apparent in the data, possibly linked to seasonal rainfall infiltration.

Mecoprop

4.2.10 Recorded concentrations of mecoprop in 2014 (Figure 6) varied between 0.023 mg/l in Cell 4 Sump up to a maximum of 0.161 mg/l at Cell 1-2 Sump in April 2014. This exceeded the compliance limit of 0.071mg/l, however, a Schedule 6 notice was not issued for this breach (see Section 4.6). No obvious trends in concentration are apparent in the data since 2011.

4-methylphenol

4.2.11 Recorded concentrations of 4-methylphenol were between <0.004mg/l in Cell 4 and 5 Sumps, up to a maximum of 2.3mg/l in 6 Sump. There were no breaches of the Permit compliance limit of 1.6mg/l in Cells 1-4. There were five breaches of the Permit compliance limit of 0.126mg/l in Cells 5, 6 and 7; one in 5 Sump (October 2014), 7 Sump (March 2014) and two in 6 Sump (January and April 2014) (Table 4.2). Schedule 6 notices were issued for two of these breaches (see Section 4.6).

4.2.12 No obvious trends are apparent in the data, although a much greater variability is observed in the data from 7 Sump (Figure 7), attributed to its being operational and partially capped, noted previously.

Dichloromethane

4.2.13 During 2014 dichloromethane was not recorded above the laboratory detection limit of <0.003 mg/l at any location (Figure 8). No trends are apparent since in the data obtained since 2011.

Diethylphthalate

4.2.14 During 2014 diethylphthalate was not recorded above the laboratory detection limit of <0.001 mg/l at any location (Figure 9). No trends are apparent in the data obtained at any location since 2011.

Cadmium

4.2.15 Cadmium was not detected at any leachate monitoring locations above the laboratory detection limit of <0.0001 mg/l, with the exception of three trace detections in October 2014, discussed in paragraph 4.2.21. No breaches of the compliance limit of 0.105mg/l occurred (Figure 10).

Leachate Chemistry – Extended Annual Suite

4.2.16 Sampling of the site leachates for the annual suite of analysis took place on 17th October 2014. The suites for the annual 'List 1' monitoring were agreed with NRW beforehand and are summarised within the technical note in Appendix B. The results are shown on the certificates of analysis in Appendix C.

4.2.17 The extended analysis confirmed the chemistry of the site leachates to be considerably different to that of the waters in the under-drainage system and the surface water and groundwater in the vicinity of the site. The general chemistry of the leachates in terms of nitrogen and chloride signatures, transition metals and Hazardous Substances is discussed below.

General Parameters

4.2.18 High concentrations of ammoniacal nitrogen were present within the site leachates, between 155mgN/l up to a maximum of 865mgN/l in 5 Sump. As expected, total oxidised nitrogen (TON) was not detected because of the anaerobic state of the cells. Recorded chloride was between 706 mg/l in 7 Sump up to a maximum of 1890 mg/l in 4 Sump. Concentrations of ammoniacal nitrogen and chloride in the leachate lagoon were lower, between 154 mgN/l and 385 mgN/l respectively.

Hazardous Substances

4.2.19 Hazardous Substances were detected at most locations. In contrast to the other waters analysed (under-drainage, surface water and groundwater, discussed later in this section), many different types and individual compounds of Hazardous Substances were detected. For the sake of brevity and to aid comparison with the chemistry of the other waters, discussed later, these are discussed in general terms by compound type, with only specific mention of individual concentrations of determinands, where considered significant.

4.2.20 The following Hazardous Substances were not detected at any location above their respective method detection limits (MDLs):

- Mercury;
- Cyanide;
- Polychlorinated biphenyls (PCBs);
- Organochlorine and organophosphorous pesticides.

4.2.21 The following Hazardous Substances were only detected at some locations:

- Methyl tertiary butyl ether (MTBE), a historic additive to petroleum, was detected at Cell 6 Sump (0.021 mg/l);

- Cadmium was detected at Cell 4 (1.03x 10^{-4} mg/l), Cell 5 (1.27 x 10^{-4} mg/l) and Cell 6 Sump (1.04 x 10^{-4} mg/l). These are only marginally above the MDL of 1 x 10^{-4} mg/l.

4.2.22 A greater variety of Hazardous Substances was detected in the following parameter groups than in the other waters at and adjacent to the site:

- Phenols;
- Petroleum hydrocarbons;
- Volatile and semi-volatile organic compounds, including polycyclic aromatic hydrocarbons (PAH); phenoxyacid and phenylurea herbicides; and
- Transition metals, excluding those discussed above.

Phenols

4.2.23 The phenols detected included phenol, isomers of methylphenol, and chlorinated versions of phenol and methylphenol. In general, the greatest concentrations were detected in Sump 4:

- Phenol was detected in all leachate sumps at concentrations of between 0.0557mg/l and 0.142mg/l, highest in 1-2 Sump
- 4-methylphenol was detected in all leachate sumps from 0.016mg/l (7 Sump) up to a maximum of 0.17mg/l in 5 Sump;
- 2,3,5,6-tetrachlorophenol and 2,3,4,6-tetrachlorophenol were detected in 4 Sump with concentrations of 0.022 mg/l and 0.018 mg/l respectively;
- Pentachlorophenol was detected 0.065mg/l

GRO, VOCs and SVOCs

4.2.24 Gasoline Range Organics were not detected at any locations. EPH range >C10-C_{40} were detected at all locations with recorded concentrations between 0.87mg/l and 3.48 mg/l. Although trace concentrations of BTEX (benzene, toluene, ethylybenzene and xylenes) were detected at all locations, the majority of the TPH species were in the form of longer chain aliphatic species.

4.2.25 Volatile screenings confirmed that with the exception of carbon disulphide, which was detected at trace concentrations in all leachate monitoring locations, up to a maximum concentrations of 2.63 x 10^{-3}mg/l at 4-Sump, all the detections of VOCs were constituents of TPH.

4.2.26 Similarly the semi-volatile organic screenings confirmed the presence of the phenolic compounds, discussed above and trace concentrations of bis(2-ethylhexyl)phthalate, which was detected at all locations up to a maximum of 0.098 mg/l at 1/2 Sump. PAH species were not detected.

Herbicides

4.2.27 Many more species of phenoxyacid herbicides were detected in the site leachates than in the under-drainage and surface waters, particularly PAA, PPA, 4-phenoxybuteric acid, mecoprop and 2,4-DP. These were detected at trace

concentrations. Of the compounds detected in the under-drainage and surface waters:

- Phenoxyacetic acid was detected in all sumps, up to a maximum of 14.9 x 10^{-2} mg/l in 5 Sump; and
- Mecoprop was detected in all sumps up to a maximum of 0.067.9mg/l in 6 Sump.

Transition Metals

4.2.28 The recorded concentrations of the transition metals within the site leachates, not discussed above, were typically between one and two orders of magnitude greater than in the other waters sampled and were greatest in 4 and 5 Sump:

- Chromium: between 0.111 mg/l (7 Sump) and 0.305 mg/l (5 Sump);
- Lead: between 2.49 x 10^{-3} mg/l (7 Sump), up to 4.34 x 10^{-3} mg/l at 5 Sump;
- Nickel: between 0.0531 mg/l (7 Sump) up to a maximum of 0.136mg/l at 5 Sump; and
- Zinc: between 0.0351 mg/l at 7 Sump up to a maximum of 0.0919 mg/l at 4 Sump.

4.3 Surface Water

4.3.1 The surface water compliance monitoring is summarised in Table 4.3 and shown graphically in Figures 11-14. Table S4.3 of the Site Permit sets limits on allowable concentrations at monitoring points SW205 and SW206. The results obtained are discussed below results are shown on the laboratory certificates in Appendices A and C. Monitoring point SW203 was dry from March 2014 to September 2014 and therefore unable to be sampled.

pH

4.3.2 The recorded pH level at the regulated emission points (SW205 and SW206) varied between pH 7.41 and pH 8.31 and was within the limits within the Site Permit (pH 6.0 - 9.0). The pH at other surface water monitoring points was consistently within this range. Monitoring location SW206, upstream of the site, tends to register a lower pH (pH7.4 – 7.8) than the other monitoring points.

Suspended Solids

4.3.3 The time series of suspended solids is shown in Figure 11. Measured suspended solids were all below the Permit limits of 70 mg/l at SW205 and 50 mg/l at SW206; the maximum recorded being 46 mg/l at SW205. Suspended solids at the other monitoring points recorded a maximum of 1850 mg/l at SW201 (August 2014). This was an isolated incident, with the next highest concentration recorded at this location being 50.5 mg/l, possibly attributed to sampling technique. No trends are apparent in the data obtained since 2011.

Ammoniacal Nitrogen

4.3.4 Recorded ammoniacal nitrogen within the surface waters is shown in Figure 12. One exceedance of the compliance limit of 1mgN/l within the Site Permit occurred at

SW205 where 1.32mgN/l was recorded in October 2014. A Schedule 6 notice was not submitted for the exceedence (see Section 4.6). Concentrations of ammoniacal nitrogen in excess of 1mg/l were recorded at all locations (with the exception of SW206) throughout 2014. The maximum concentration was recorded at SW201 (2.14mg/l in February 2014). The concentrations in excess of 1mg/l were recorded in either in the first quarter or the last i.e. during the wetter months. These do not comprise Permit breaches.

4.3.5 No obvious trends are apparent in the time-series shown in Figure 12. What is apparent is a 'peakiness' in the data, which implies that there is a correlation between ammoniacal nitrogen and surface flow processes in the vicinity of the site, noted previously.

Chloride

4.3.6 Concentrations of chloride recorded since 2011 are shown in Figure 13. In 2014 these were between 10.7mg/l up to a maximum of 68.8mg/l at SW205 in October 2014 The maximum recorded concentrations at SW205 and SW206 were 68.8mg/l and 23.7mg/l respectively, considerably below the Permit compliance limit of 150mg/l.

Mecoprop

4.3.7 The time series of mecoprop concentrations detected in the surface waters is shown in Figure 14. During 2014, mecoprop was detected above the laboratory detection limit of 2.5×10^{-5}mg/l at all the surface water monitoring locations at some point during 2014, up to a maximum of 5.4×10^{-5}mg/l in SW205 in February 2014, which is below the Permit compliance value of 5.5×10^{-5}mg/l. Again, whilst there is no discernable trend, a peak was apparent at all monitoring locations in February 2014 (with the exception of SW204 and SW206), up to a maximum recorded concentration of 1.12×10^{-4} mg/l (SW201). This does not comprise a Permit breach.

4.3.8 Mecoprop was omitted from the analysis in the fourth quarter due to a laboratory error, with only SW204 being analysed.

4.3.9 No obvious trend is apparent within the data presented in Figure 14. What is apparent is that detections of mecoprop have become more commonplace from the beginning of 2011, also noted in the 2013 compliance report. This coincided with a change in analytical laboratory (from Severn Trent to ALcontrol) and is suspected of being a factor in the results reported.

Dichloromethane

4.3.10 Dichloromethane was not detected at any location above the laboratory detection limit of 0.003mg/l at any point during 2014. The analytical limit of detection was marginally above the Permit compliance limit of 0.002mg/l.

4-methylphenol, Diethylphthalate and Cadmium

4.3.11 There were no breaches of the Site Permit Compliance Limits for these compounds during 2014, which were not detected at any surface water location at any time. Diethylphthalate was omitted from the analysis in the fourth quarter; due to laboratory error:

- 4-methylphenol was not detected above its laboratory detection limit of 0.001 mg/l. The Permit compliance limit at SW205 and SW206 is 0.001 mg/l;

- Diethylphthalate was not detected above its laboratory detection limit of 0.001 mg/l. The Permit compliance limit at SW205 and SW206 is 0.003 mg/l; and
- Cadmium was not detected above its laboratory detection limit of 1 x 10^{-4} mg/l. The Permit compliance limit at SW205 and SW206 is 10^{-4} mg/l.

Extended 'Annual' Suite of Analysis

4.3.12 Sampling of the surface waters for the annual suite of analysis took place on 17 October 2014. The suites for the annual 'List 1' monitoring were agreed with EAW beforehand and are summarised on the technical note in Appendix B. The results are shown on the certificates of analysis in Appendix C.

4.3.13 The extended analysis confirmed the surface waters in the vicinity of the site to be low in the indicators of contamination typically associated with domestic landfill leachates, nutrients, transition metals and Hazardous Substances, including those compounds for which Compliance Llimits have been set.

4.3.14 Nitrogen species were recorded at low concentrations at all locations except SW203 and SW206. Ammoniacal nitrogen was detected at SW201, SW202, SW205 and SW207 inclusive up to a maximum of 1.64 mgN/l at SW207. Recorded total oxidised nitrogen (TON) was similarly low, between 3.09 mgN/l at SW201 up to a maximum of 4.5mgN/l at SW205. Recorded chloride was between 12.9 – 68.8 mg/l, highest at SW205.

4.3.15 The following Hazardous Substances were not detected at any locations above their respective laboratory method detection limits (MDLs):

- Mercury above its MDL of 10^{-5} mg/l;
- Hydrocarbon species, whether gasoline range organics (GRO), or polycyclic aromatic hydrocarbons (PAH); and
- Phenols were not detected at any location.

4.3.16 Diesel range organics (EPH) range >C10 – C40 were detected at SW205 and SW207, with a concentration of 0.0637mg/l and 0.0667mg/l respectively.

4.3.17 Trace concentrations of phenoxyacid herbicides were only detected at SW204, as analysis of the locations were not undertaken due to a laboratory error. A Schedule 6 notice was submitted to this effect. Only mecoprop was detected at SW204 above its MDL of 2.5 x10^{-5} mg/l where a concentration of 7.82 x 10^{-5} mg/l was reported.

4.3.18 Other transition metals (i.e. in addition to cadmium and mercury, noted above) were only detected at trace concentrations, as follows:

- Chromium and copper were detected at all locations up to a maximum of 0.00158mg/l and 0.00931mg/l, at SW201 and SW205 respectively;
- Lead, up to a maximum of 0.000205mg/l at SW202
- Nickel, up to a maximum of 0.00638mg/l at SW205; and
- Zinc, up to a maximum of 0.0722mg/l at SW203.

4.4 Groundwater

Groundwater Elevations

4.4.1 The groundwater level data obtained from the perimeter monitoring boreholes are summarised in Table 4.4. The data for February 2014 are shown on Figure 1 and indicate a general movement of groundwater from north to south and south-west in the vicinity of the site. This is consistent with the site topography and historic monitoring information.

Groundwater Chemistry

4.4.2 This section includes the chemistry of the under-drainage locations UD1 - UD5. It should be recognised, however, that the under-drainage locations are internal to the site, whereas the perimeter monitoring boreholes are external to the containment facility. Under-drainage monitoring point UD2 and perimeter borehole NACW227 were unable to be sampled for the majority of the year as they were dry. UD 5 was unable to be sampled in September 2014 as it was also dry.

4.4.3 The groundwater compliance monitoring is summarised in Table 4.5 and shown graphically in Figures 15-19.

Ammoniacal Nitrogen

4.4.4 No exceedances of the Permit compliance limit of 5.5mgN/l for ammoniacal nitrogen were recorded in either the site under-drainage or perimeter monitoring boreholes during 2014. Recorded concentrations were between less than the laboratory detection limit (typically <0.2mgN/l) up to a maximum of 4.6mgN/l in UD 4 on the southern site margin. The maximum recorded concentration within the site under-drainage was 4.6 mgN/l in UD4.

4.4.5 No trends are apparent within the time series data shown in Figure 15.

Chloride

4.4.6 No exceedances of the Permit compliance limit of 150mg/l for chloride were recorded in either the site under-drainage or perimeter monitoring boreholes during 2014. Recorded concentrations were between 8.8mg/l in UD5The maximum recorded concentration within the site under-drainage was 60.4mg/l in UD4.

4.4.7 No trends are apparent within the time series data shown in Figure 16.

Mecoprop

4.4.8 Mecoprop was only detected above the laboratory diction limit of 4×10^{-5}mg/l in six of the 21 under-drainage and groundwater monitoring locations during 2014, three of which were greater than the Permit Compliance Limit for mecoprop of 5.5×10^{-5}mg/l: at NACW228 (1.5×10^{-4}mg/l), NACW229 (1.78×10^{-4}mg/l) and BH3/9 (7.2×10^{-5}mg/l). Of these locations, only NACW228 is a controlled location within the Site Permit, however a Schedule 6 notice was not submitted for this breach (see Section 4.6).

4.4.9 The time series data shown in Figure 17 illustrate the sporadic nature of the mecoprop detections.

Dichloromethane

4.4.10 Dichloromethane was not detected at any location above the laboratory detection limit of 0.003mg/l at any point during 2014. The analytical limit of detection was marginally above the Permit compliance limit of 0.002mg/l.

4-methylphenol and Diethylphthalate

4.4.11 There were no breaches of the Site Permit for these compounds during 2014, which were not detected in any groundwater location at any time:

- 4-methylphenol was not detected above its laboratory detection limit of 0.001 mg/l. The Permit compliance limit is 0.01 mg/l; and
- Diethylphthalate was not detected above its laboratory detection limit of 0.001 mg/l. The Permit compliance limit is 0.003 mg/l.

4.4.12 Cadmium

4.4.13 Cadmium was detected above its laboratory detection limit of 1×10^{-4} mg/l at 1 of the 21 monitoring locations with a maximum of 1.2×10^{-4} mg/l in BH3/5 on the northern site margin in January 2014. This does not comprise a permit breech.

4.4.14 The time series of reported cadmium is shown in Figure 18 and shows no trend or obvious pattern. Cadmium was only detected in the third quarter of 2014, at BH3/5. This location is located up-gradient and to the north of the landfill site and removed from any containment facility and is therefore attributed to natural background, as reported in the 2012 HRA[5]. This point is emphasised in that no detections of cadmium were reported from the site under-drainage locations at any point during 2014.

Nickel

4.4.15 Dissolved nickel was detected above its laboratory detection limit of 1.5×10^{-4} mg/l at all of the 21 monitoring locations, up to a maximum of 0.00564 mg/l in NACW229.

4.4.16 The time series of reported nickel is shown in Figure 19 and shows no trend or obvious pattern.

Extended 'Annual' Suite of Analysis

4.4.17 Sampling of the under-drainage and groundwaters for the annual suite of analysis took place on the 16th and 17th of November 2014. The suites for the annual 'List 1' monitoring were agreed with EAW beforehand and are summarised on the technical note in Appendix B. The results are shown on the certificates of analysis in Appendix C. Monitoring locations NACW227 and UD2 were consistently dry and therefore unable to be sampled.

4.4.18 The extended analysis confirmed the chemistry of the under-drainage and perimeter groundwaters to be of good quality, very similar to that of the surface waters in the vicinity of the site, in terms of nitrogen and chloride signatures, transition metals and Hazardous Substances. For clarity, these are discussed separately below.

Under-drainage

[5] Parsons Brinckerhoff, 2012. Nantycaws Landfill. Hydrogeological Risk Assessment – Four Yearly Review. Report to Cwm Environmental. Issue No. 2, October 2012.

4.4.19 Low concentrations of nitrogen species were recorded at all under-drainage locations. Ammoniacal nitrogen was detected above its MDL of 0.2mgN/l at all locations except UD4, where a maximum concentration of 0.397 mg/l was detected. Measured TON total oxidised nitrogen was similarly low, between 1.2 – 5.24mgN/l, greatest at UD5. Recorded chloride was between 20.1 – 40.6 mg/l, with the highest in UD5.

4.4.20 The following Hazardous Substances were not detected at any locations above their respective laboratory method detection limits (MDLs):

- Cadmium;
- Total cyanide;
- Phenols, including 4-methylphenol;
- Gasoline Range Organics and BTEX;
- Polychlorinated biphenyls (PCBs);
- Organochlorine and organophosphate pesticides;
- Phenylurea herbicides; and
- Phenoxyacid herbicides, with the exception of phenoxyacetic acid(PAA) and mecoprop, which were detected at UD4 and UD5 at concentrations of 3.26 x 10^{-5} mg/l (UD4 - PAA),) and 5.5 x 10^{-54}mg/l (UD5-mecoprop).

4.4.21 Trace concentrations of chloroform (1.33 x 10^{-3} mg/l) and bromodichloromethane (1.08 x 10^{-3}) mg/l were detected in UD3 (these parameters are often regarded as indicators of mains water).

4.4.22 Lead, mercury and copper were detected in UD1, UD3, UD4 and UD5. Lead was detected up to a maximum concentration of 3.89 x 10^{-4}mg/l in UD5. Mercury was detected up to a maximum concentration of 2.08 x 10^{-5}mg/l in UD5. Copper was detected at all locations with concentrations ranging from 0.969 x 10^{-4}mg/l to 4.45 x 10^{-3}mg/l.

Perimeter Groundwaters

4.4.23 Low concentrations of nitrogen species were recorded at all locations. Ammoniacal nitrogen was detected above its MDL of 0.2mgNL at several locations with a maximum of 0.396mg/l at NACW229, whilst TON was recorded between 0.518mgN/l at BH3/3 up to a maximum of 2.52mgN/l at NACW228. Recorded chloride was between 10.5mg/l in BH3/2 up to a maximum of 60.4mg/l in NACW229.

4.4.24 The following Hazardous Substances were not detected at any locations above their respective laboratory method detection limits (MDLs):

- Cadmium and mercury;
- Gasoline range organics (GRO)
- Polycyclic aromatic hydrocarbons (PAH).

4.4.25 The following Hazardous Substances were detected at some locations:

- Phenol was detected above its MDL of 0.5 x 10^{-4} mg/l at NACW228 and NACW229, with a maximum recorded concentration of 2.53 x 10^{-2} mg/l.

- EPH Range >C10 – C40 were detected at NACW203, NACW205, BH3/6, BH3/8 and BH 3/9 with a maximum concentrations of 0.815 mg/l recorded at NACW205. A maximum of 0.135 mg/l was recorded between boreholes BH3/6, 3/8 and BH3/9.

4.4.26 Phenoxyacid herbicides were detected at four locations:

- phenoxyacetic acid was detected above its MDL of 3.1 $x10^{-5}$ mg/l at BH3/9 (4.02 $x10^{-5}$mg/l), BH5/02 (1.13 x 10^{-4}mg/l),
- Phenoxypropionic acid was detected above its MDL of 3.3 $x10^{-5}$ mg/l at NACW228 (4.43 $x10^{-5}$mg/l), NACW229 (3.34 x 10^{-5}mg/l);
- 2,4-Dichlorophenoxy propanoic acid was detected above its MDL of 1.5 $x10^{-5}$ mg/l again at NAand
- mecoprop was detected above its MDL of 2.5 $x10^{-5}$ mg/l at NACW229, where 3.13 $x10^{-5}$ mg/l was reported.

4.4.27 Other transition metals (i.e. in addition to cadmium, lead and mercury, noted above) were only detected at trace concentrations, as follows:

- Chromium was detected at all locations, between 5.01 $x10^{-4}$ mg/l and 2.51 x 10^{-3} mg/l, highest in NACW229;
- Copper was detected at some locations, up to a maximum concentration of 4.04 x 10^{-3}mg/l in BH3/8;
- Lead was detected at some locations, up to a maximum concentration of 3.62 $x10^{-4}$ mg/l, in NACW229;
- Nickel was detected at all locations at concentrations of between 6.95 $x10^{-4}$ mg/l and 5.64 x 10^{-3}mg/l, highest in NACW229 (the next highest recorded concentration was 5.13 x 10^{-3}mg/l in NACW228); and
- Zinc was detected in all boreholes up to a maximum concentration of 2.85 x 10^{-3} mg/l at BH208.

4.5 Landfill Gas Monitoring, Perimeter Boreholes

4.5.1 The requirements of the Site Permit are summarised in Table 3.4. During 2014 gas data could not be obtained from boreholes NACW208 and BH5/02, which were flooded. Boreholes NACW215 and NACW216 could not be sampled between September-December 2014 inclusive because of engineering works.

4.5.2 No exceedances of the Site Permit conditions were recorded at any perimeter borehole location during 2014.

Methane

4.5.3 There was no exceedence of the Compliance Limit of 1%v/v methane within the Site Permit during 2014. Methane was recorded at the instrument limit of detection of 0.1% v/v at 24 of the 26 boreholes monitored. A detection of 0.2% was recorded at 8 boreholes NACW201, NACW205, NACW212, NACW227, NACW228, NACW230, BH3/8 and BH3/8 (Table 4.6).

Carbon Dioxide

4.5.4 Carbon dioxide was recorded within 23 of the 26 boreholes monitored, up to a maximum of 1.2% v/v in three boreholes (NACW212, BH3/4 and BH3/5) in April and May 2014. On most occasions, however, recorded concentrations were below 1% in the majority of monitoring wells. At no point did readings of carbon dioxide exceed the Compliance Limit for carbon dioxide in the Site Permit of 3.5% (Table 4.7).

Oxygen

4.5.5 Recorded concentrations of oxygen within the monitoring wells were typically between 18% to 22%. Oxygen concentrations of <6% was recorded in borehole NACW205; the low oxygen concentrations in NACW205 occurred in the June to July period as with another in the October to December period. Oxygen depletion is typically observed in those locations where elevated carbon dioxide concentrations are also observed.

4.6 Summary of Control Level Breaches (Schedule 6 Notices)

4.6.1 A total of four Schedule 6 notices were issued to NRW during 2014 following breaches of the Compliance Limits within the Site Permit. These are shown in Table 4.9 and summarised below:

- One was submitted regarding Cell 6 and Cell 7 Sump for breach of the Compliance Limit for 4-methylphenol;
- One for exceeding the limit for ammoniacal nitrogen at SW205;
- One for exceeding the limit for mecoprop at SW204; and
- One for the omission of analysis for mecoprop in 5 surface water locations in the 4th Quarter, through laboratory error.

4.6.2 This review has illustrated that several additional breaches of the Site Permit went unreported during 2014, which are summarised in Table 4.10:

- An exceedence of the Compliance Limit for mecoprop at Cell 1/2 Sump in the 1st Quarter monitoring.
- An exceedence of the Compliance Limit for mecoprop at NACW228 in 4th Quarter. This is included in Figure 17;
- Two exceedences of 4-methylphenol in Cell 5 and Cell 6 Sumps, in the 4th and 1st Quarters, respectively.

4.6.3 These breaches are discussed in more detail in Section 5.

SECTION 5

DISCUSSION

5 DISCUSSION

5.1 General Considerations

5.1.1 The overall impression from the results of the monitoring undertaken during 2014, was that the site had little, if any, impact on the surrounding water environment during this period, consistent with previous reporting.

5.1.2 A variation in leachate strength is apparent within the water quality data obtained from the leachate sumps. Overall, however, the leachate chemistry, both in terms of its general indicators (e.g. ammoniacal nitrogen and chloride) and its trace chemistry (e.g. transition metals, hydrocarbon species or phenoxyacid herbicides etc.) is sufficiently different from the chemistry of the surrounding water environment, that chronic leakage would be expected to be detected. Concentrations of indicator parameters within the leachate are greater than in the surrounding water environment typically by between one and two orders of magnitude and, occasionally, more. That there are no obvious trends within the main parameters tested, confirms the overall impression regarding the impact of the site upon the water environment.

5.1.3 This general conclusion is strengthened by consideration of the Permit breaches that occurred during 2014.

5.2 Permit Breaches

5.2.1 With the exception of the omission of mecoprop from the analytical suite in the surface waters during the fourth quarter sampling, the Permit breaches that occurred in 2014 related to reported concentrations of the following:

- Mecoprop and 4-methylphenol in the leachate sumps during the 1st and 3rd Quarters of 2014, which contributed to most breaches;
- An isolated exceedance of mecoprop in one groundwater location (NACW228) in the 3rd Quarter;
- Ammoniacal nitrogen at surface water monitoring point SW205 in the 4th Quarter; and
- Mecoprop at surface water monitoring point SW204 during the 4th Quarter.

5.2.2 These exceedances of the Site Permit appeared to be isolated incidents and were not sustained, such that no obvious trends or patterns in the time-series data are apparent. No exceedances of the Site Permit conditions for these parameters occurred within the under-drainage, arguably those locations most susceptible to contamination from landfill leachate.

5.2.3 This confirms the overall impression that the site had little, if any, impact on the surrounding water environment during 2014.

5.3 Recommendations Arising from 2014 HRA Update

5.3.1 A four-yearly review of the 2008 Hydrogeological Risk Assessment (HRA) was undertaken by Parsons Brinkerhoff in 2012 and updated in early 2014[6]. This report

[6] Parsons Brinckerhoff, 2014. Nantycaws Landfill. Hydrogeological Risk Assessment – Four Yearly Review. Report to Cwm Environmental. Issue No. 4, September 2014.

made the following recommendations regarding the principal contaminants of concern based on review of the monitoring data obtained at the site until the end of 2013. The HRA also made recommendations to amend the limits for chloride in groundwater and to revise the monitoring schedule for leachate and groundwater accordingly.

Leachate Chemistry

5.3.2 The monitoring undertaken in 2014 indicated new maxima for 4-methylphenol within the leachates, at 6-Sump in the 1st Quarter and at 5-Sump in the 4th Quarter. This is unlikely to affect the recommendations made within the 2014 HRA update, however this should be checked by reviewing the 'source term' distributions used in the update.

Groundwater Chemistry

5.3.3 Notwithstanding the findings of the chemistry of the site leachates, discussed above, the data presented in this review confirm that previously reported, that there is a very strong technical case for re-presenting the natural background chemistry of the groundwaters outside of the influence of the landfill operations, particularly in relation to concentrations of cadmium and nickel. This case was also presented in the 2014 HRA update[7] and the 2012 and 2013 compliance reports[8][9] The data clearly demonstrate that setting compliance limits for cadmium, for example, at the laboratory MDLs is technically far too simplistic and in need of reappraisal, based on the monitored chemistry within up-gradient groundwater monitoring boreholes.

Surface Water Chemistry

5.3.4 Review of the water chemistry data for the site, implicit within the comments made above, suggests that the most sensitive CoCs at the site are ammoniacal nitrogen and mecoprop. As reported previously, however, it is far from clear that the Permit breaches for these compounds are, by definition, indicative of chronic leakage from the containment cells. The evidence for this is as follows:

1) The time series data or these compounds show an absence of consistency in breaches or of trends in data. Rather, the data show sporadic breaches in 'peaky' responses, similar to flood peaks on a hydrograph. This suggests that the breaches are related to acute incidents, possibly surface flow processes, rather than chronic release.
2) The breaches are not reflected in the under-drainage chemistry, which would be expected if chronic leakage were the cause. Instead, the data appear to indicate a disconnect between the chemistry of the under-drainage and the surface waters into which they flow.
3) Mecoprop, above the compliance limit was detected in borehole BH3/2, on the north-western margin of the site in 2014, considerably away from landfilling operations; and
4) The site is in a rural setting and surrounded by agricultural land on clay soils. As a consequence, the surface waters are susceptible to inputs of ammoniacal nitrogen unrelated to landfilling activities.

[7] Parsons Brinckerhoff, *op. cit.*
[8] Parsons Brickerhoff, 2013. Nantycaws Landfill Site: Annual Compliance Report, 2012. February 2013.
[9] Parsons Brickerhoff, 2014. Nantycaws Landfill Site: Annual Compliance Report, 2013. February 2014.

5.3.5 As previously reported[10], there are technical grounds using the existing dataset for relaxing the Permit Compliance Limit for ammoniacal nitrogen in surface waters, from 1.0 mgN/l to approximately 1.6mgN/l. A much larger data set is required, however, to demonstrate the processes contributing to the concentrations of mecoprop observed.

5.4 Problems Encountered During Groundwater Monitoring, 2014

5.4.1 The main problem experienced during the monitoring undertaken in 2014 was inability to obtain samples from borehole NACW227, immediately south of the leachate holding lagoon and at under-drainage location UD2, on the north-eastern site margin. Both of these locations were dry for the majority of 2014, as mentioned in paragraph 4.4.2 above.

5.5 Recommendations for Annual 'List 1' Sampling, 2015

5.5.1 The requirements for the parameters to be tested in the 'List 1' sampling during 2015, should be reviewed in the context of the review of the HRA, to be reported separately (paragraph 5.3.2).

5.6 Gas Management

5.6.1 A gas emissions survey of the landfill surface was undertaken in August 2014 [11] and confirmed compliance with Environment Agency Emission Standards for permanent capping.

[10] Parsons Brickerhoff, 2014. Nantycaws Landfill Site: Annual Compliance Report, 2012. February 2014.
[11] SLR, 2014. Nantycaws Landfill. Landfill Gas Surface Emissions Survey 2014. Report No. 402.00610.00026, August 2014.

SECTION 6

CONCLUSIONS AND RECOMMENDATIONS

6 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

6.1.1 The monitoring results obtained during 2014 indicate that the landfill had very little, if any, measurable impact on the surrounding water environment.

6.1.2 There were several breaches of the Permit Compliance Limits relating to the monitored chemistry of the site leachates, surface water and groundwater in 2014. With the exception of the MDL for dichloromethane and the omission of mecoprop from the analytical suite of the surface waters in the 4th Quarter sampling, the Permit breaches that occurred in 2014 related to:

- Recorded mecoprop and 4-methylphenol in the leachate sumps, consistent with previous years;
- A single exceedance of mecoprop in one groundwater location (NACW228) in the 3rd Quarter;
- A single exceedance of ammoniacal nitrogen at surface water monitoring point SW205 in the 4th Quarter; and
- Mecoprop at surface water monitoring point SW204 during the 4th Quarter.

6.1.3 These breaches appeared to be isolated incidents, in time and space, and were not sustained, such that no obvious trends or patterns are apparent in the time-series data. Some exceedances occurred at locations up-gradient and removed of the landfill that could not have been affected by landfill operations. No exceedances of the Site Permit conditions occurred within the under-drainage, the locations potentially most susceptible to contamination from landfill leachate.

6.1.4 Monitored leachate heads within the sumps were compliant with the requirements of the Site Permit at all locations throughout 2014, confirming the effectiveness of the automated leachate extraction system, installed during 2013.

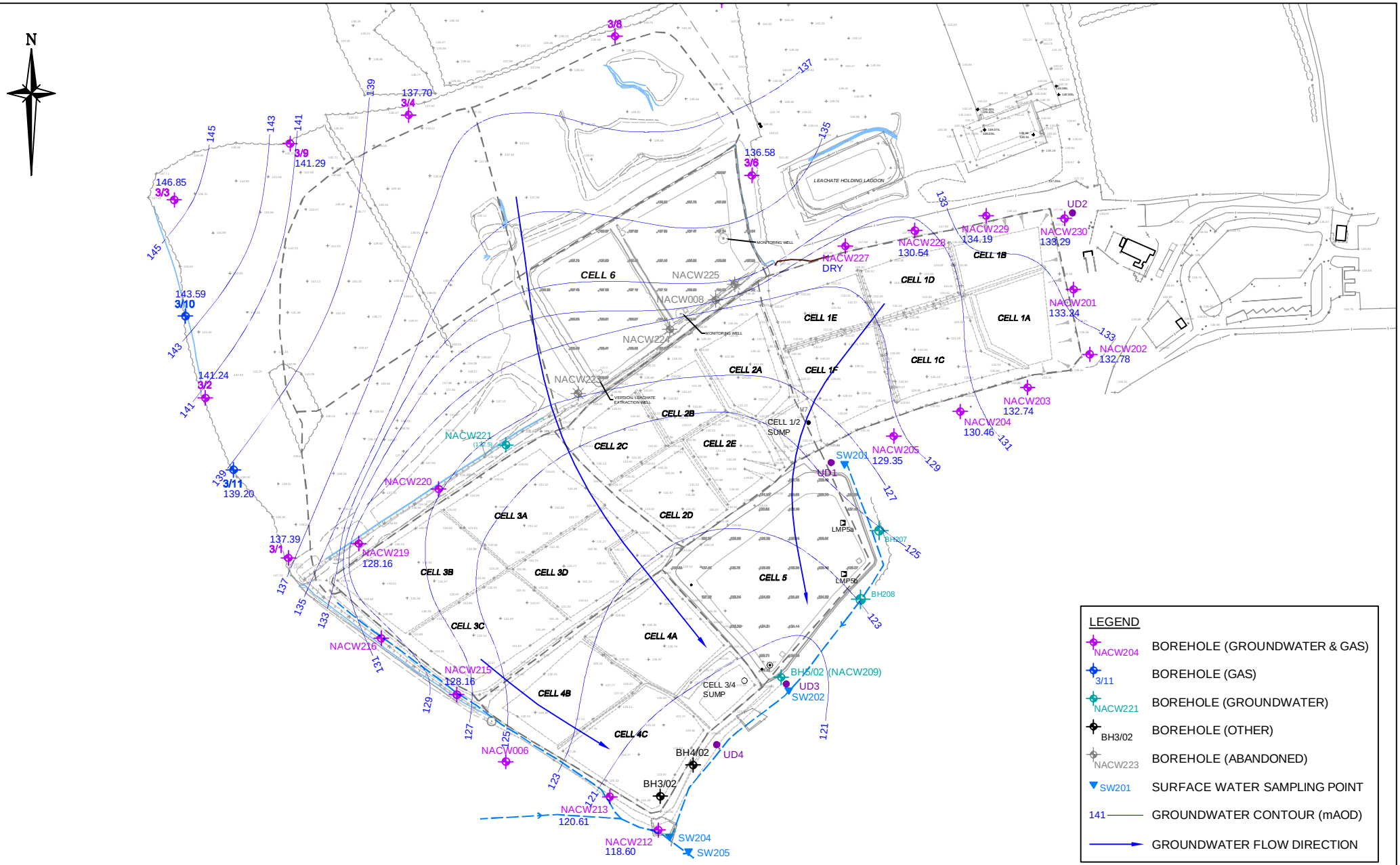
6.1.5 The performance of the landfill cap was compliant with the required standards for landfill gas emissions. Recorded gas concentrations within perimeter wells were fully compliant with the requirements of the Site Permit during 2014.

6.2 Recommendations

6.2.1 The following recommendations are made:

1) Prior to a submission to revise the compliance conditions within the Site Permit, the distributions of the leachate 'source term' should be checked using the 2014 data for 4-methylphenol, in order to confirm the findings.
2) Should the original findings be upheld, cadmium, diethylphthalate and dichloromethane should be removed as principal CoCs and the monitoring schedule for the site within the Environmental Monitoring and Management Plan (EMMP) revised accordingly.
3) Any revision of the Site Permit should also include revision of the natural background concentrations of cadmium and nickel, and of ammoniacal nitrogen in surface waters. It should also consideration of 'new' CoCs, based on the data obtained since 2008, as outlined in the 2014 HRA update.

FIGURES



Rev	Date	Description	By	Chk	App

PARSONS BRINCKERHOFF
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Tel: 44-(0)117-933-9300
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Client/Project:
CWM Environmental
Nantycaws Landfill

Title:
Annual Compliance Report
Groundwater Configuration
February 2014

Drawn: BRG		Checked: ACDG	
Designed: MS		Approved:	
Date: 27/02/2015	Scale: 1:3,500	A4	Sheet:
Project Number:		Drawing Number:	Revision:
FSE97180E		Figure 1	.

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File Name: P:\FSE\97\97180DE Nantycaws 2013-2014\Z Dwgs\1-current\97180E-F01.dwg
Plot Date: 27/02/2015 15:59:37
Login: Watt, Chris

Figure 2 - Observed Leachate Heads, January 2011 to December 2014

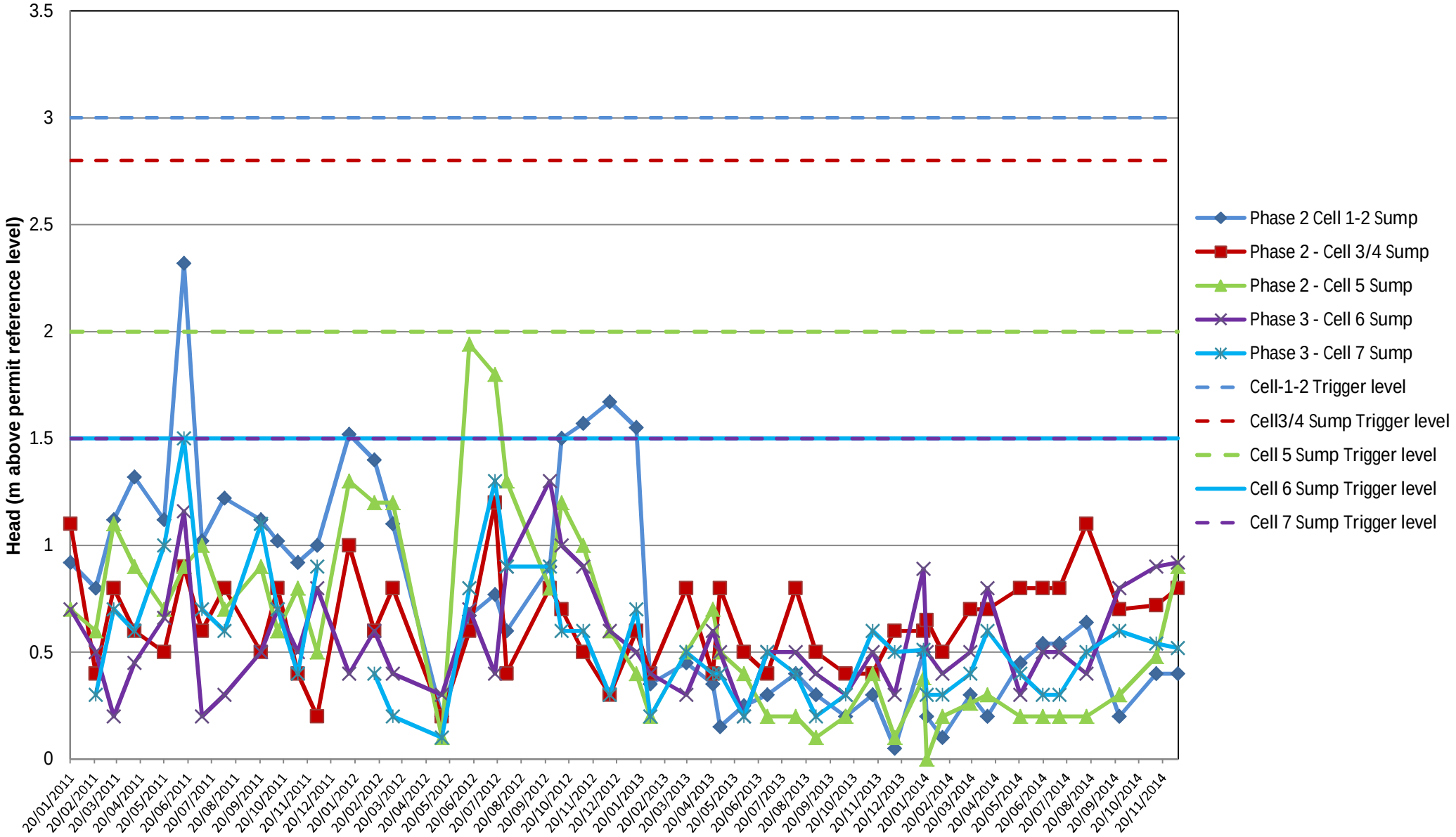


Figure 3 - Leachate Heads above Base of In-waste Boreholes, January 2011 to December 2014

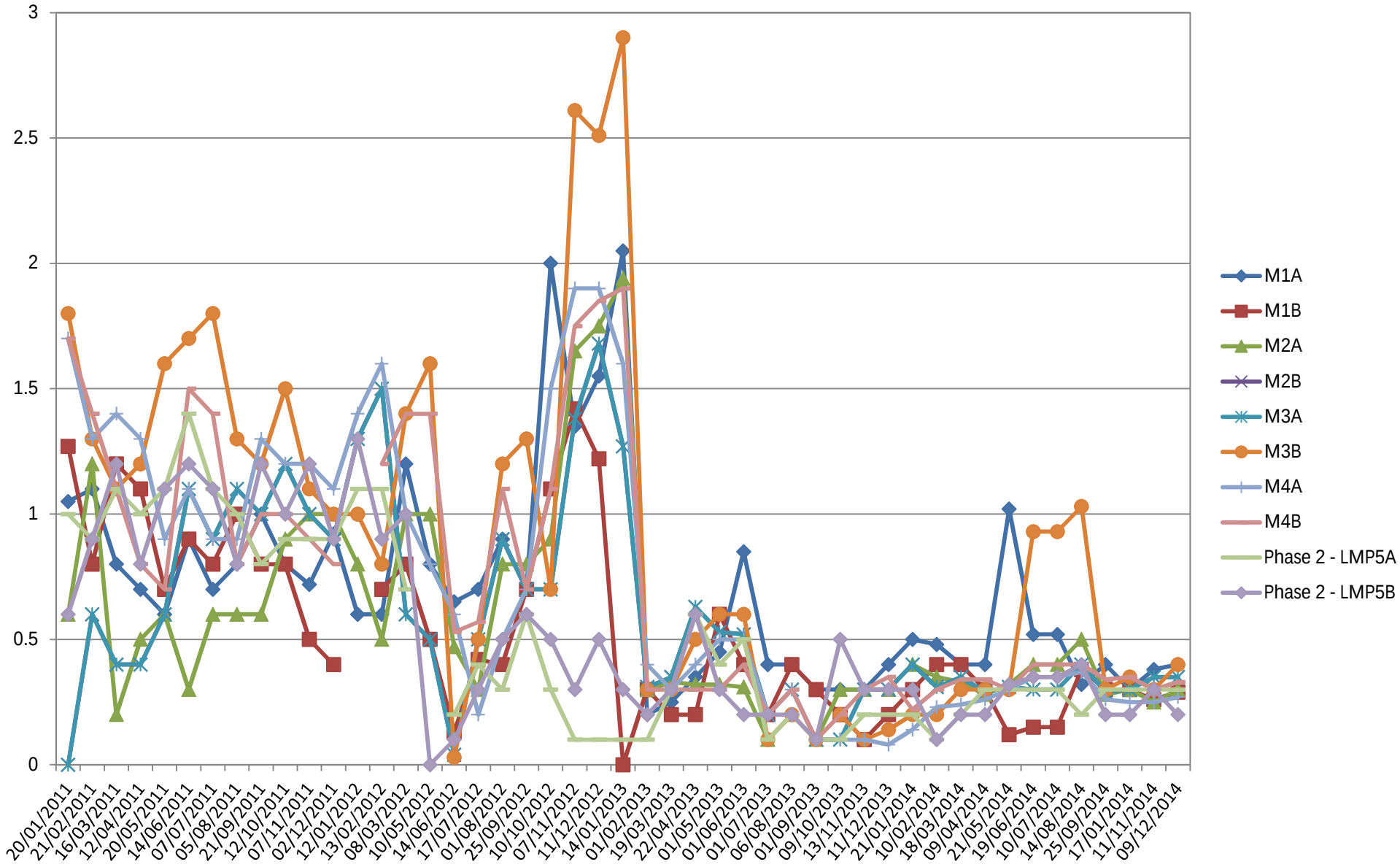


Figure 4 : Recorded Concentrations of Ammonaical Nitrogen in Site Leachates, January 2011 to December 2014

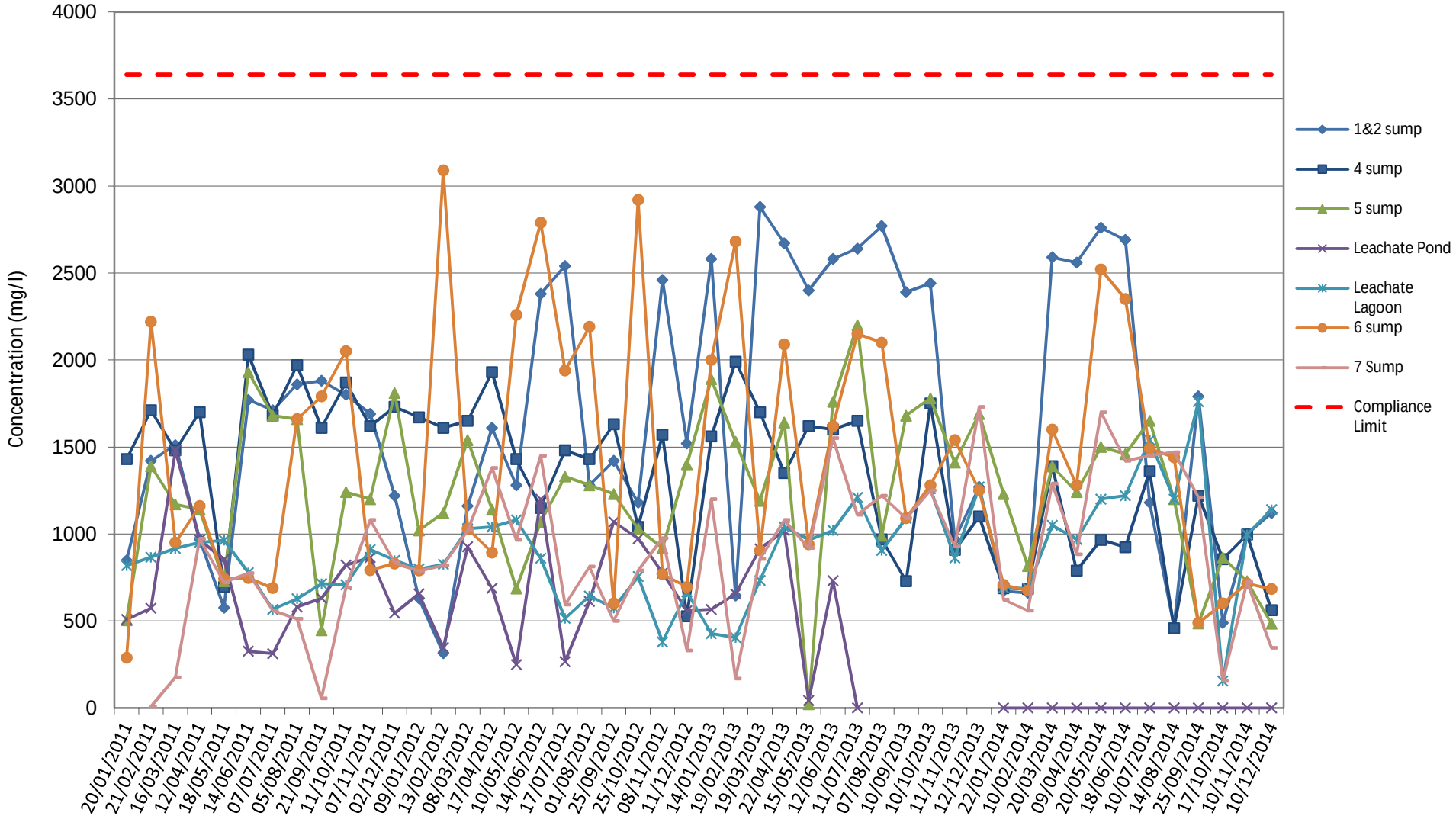


Figure 5 : Recorded Concentrations of Chloride in Site Leachates, January 2011 to December 2014

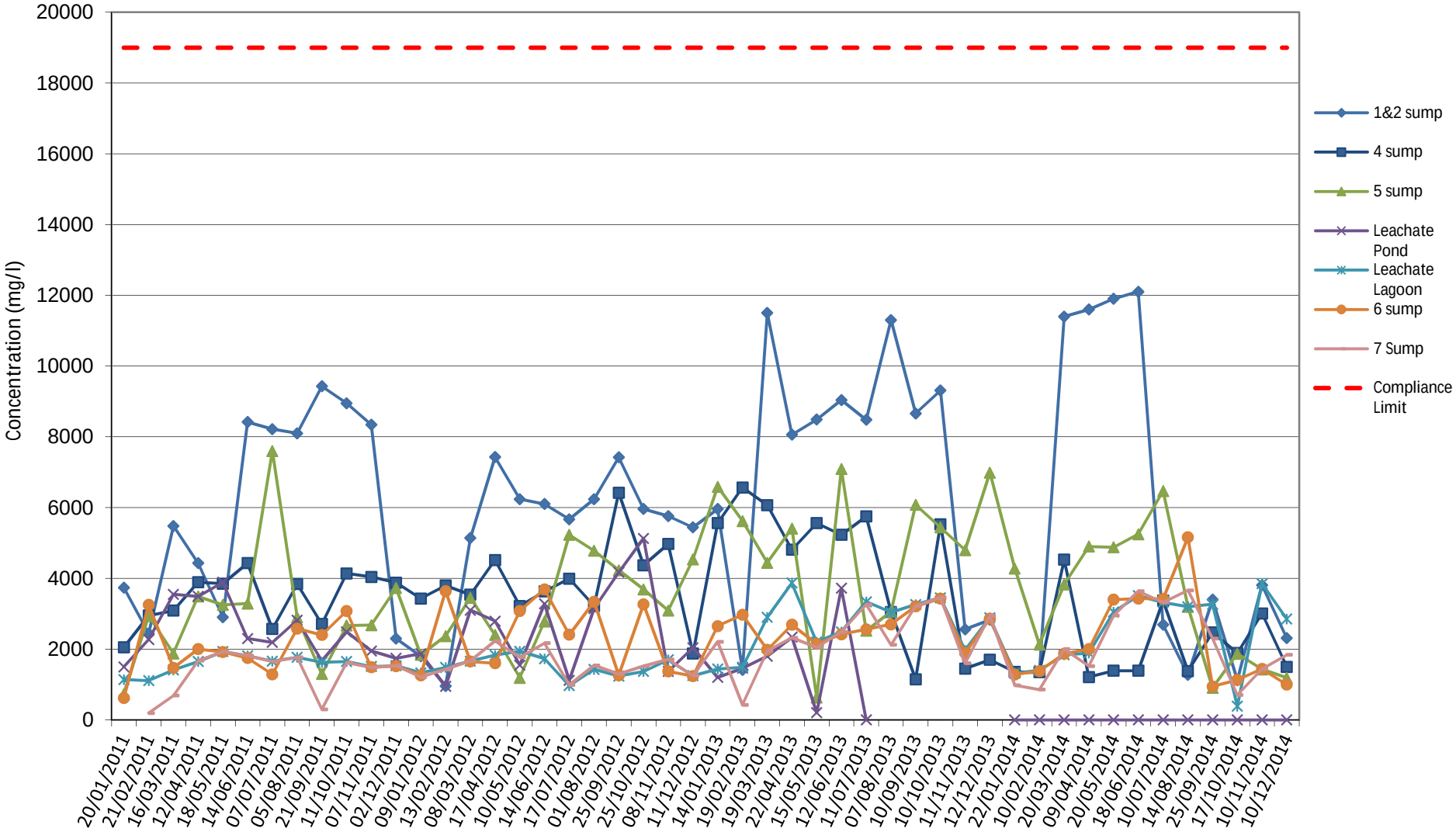


Figure 6 : Recorded Concentrations of Mecoprop in Site Leachates, January 2011 to December 2014

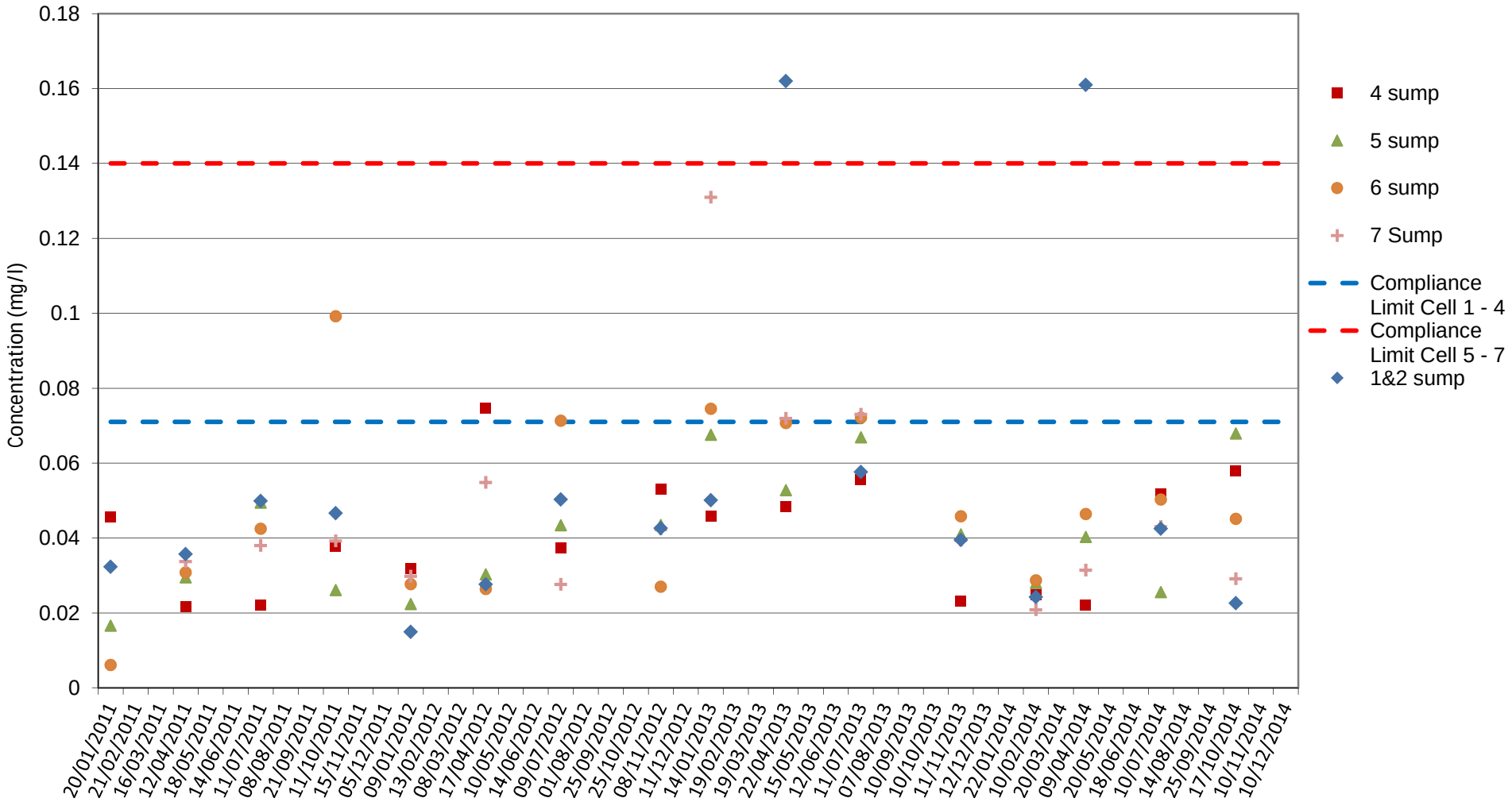


Figure 7: Recorded Concentrations of 4-methylphenol in Site Leachates, January 2011 to December 2014

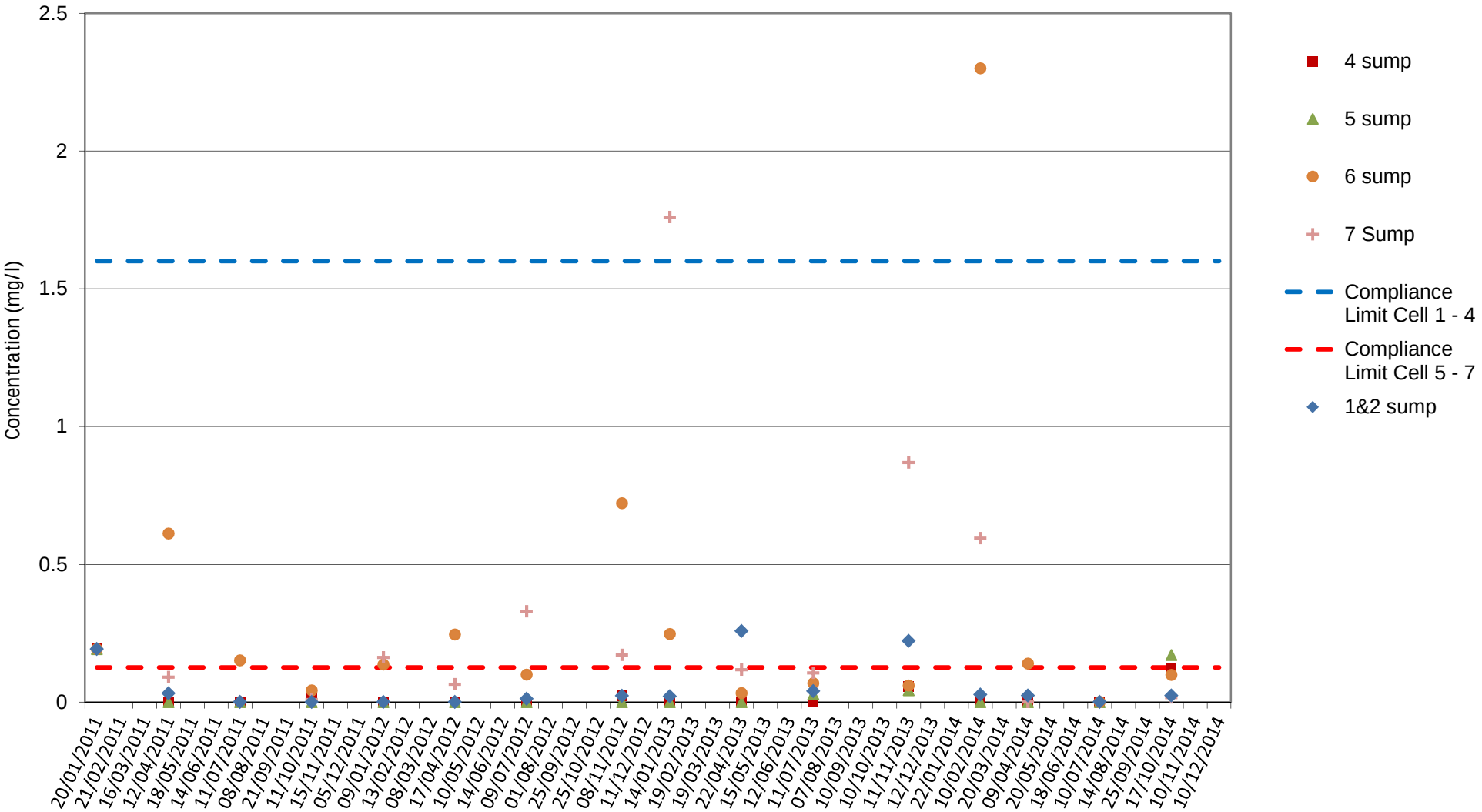


Figure 8: Recorded Concentrations of Dichloromethane in Leachates, January 2010 to December 2014

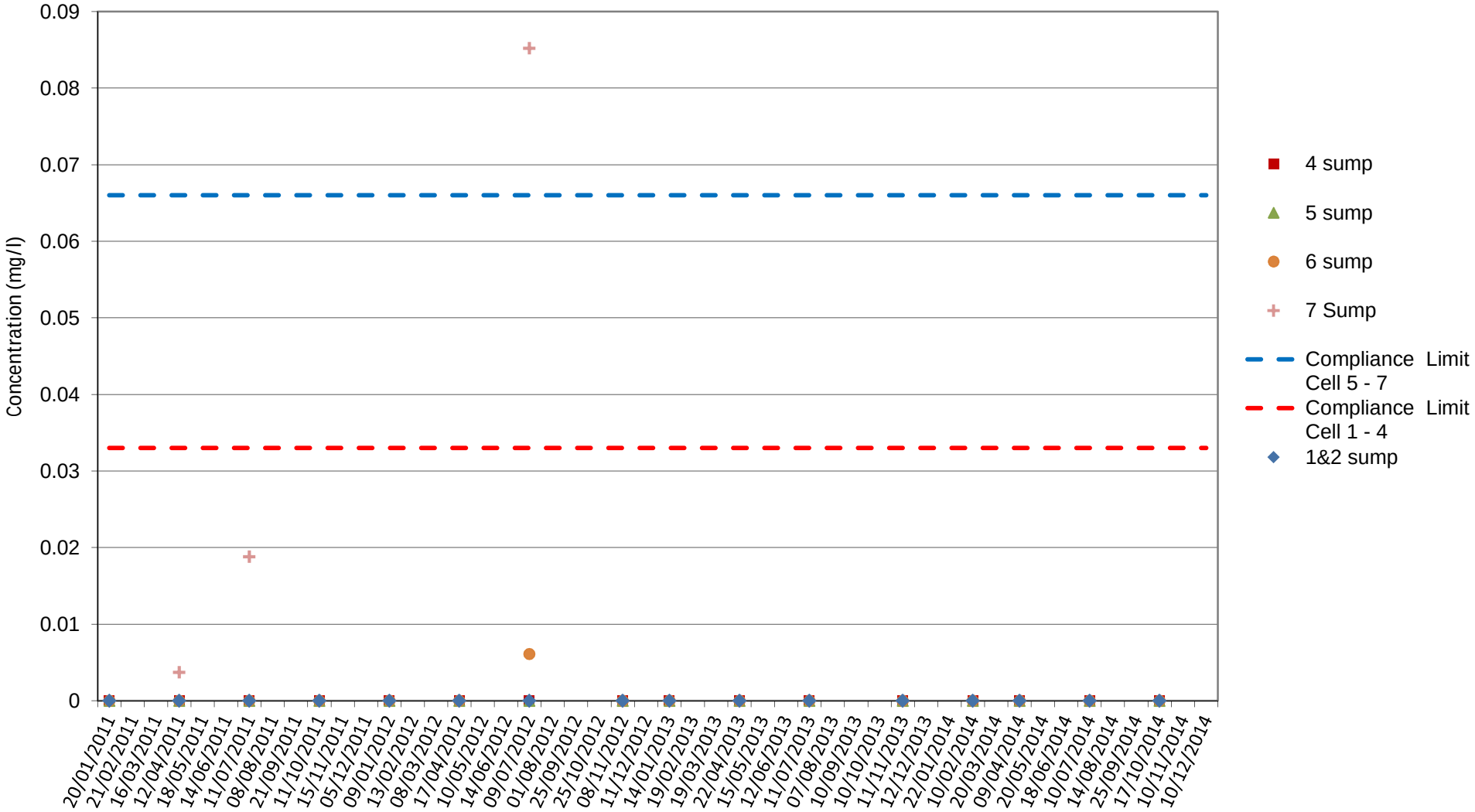


Figure 9: Recorded Concentrations of Diethylphthalate in Site Leachates, January 2011 to December 2014

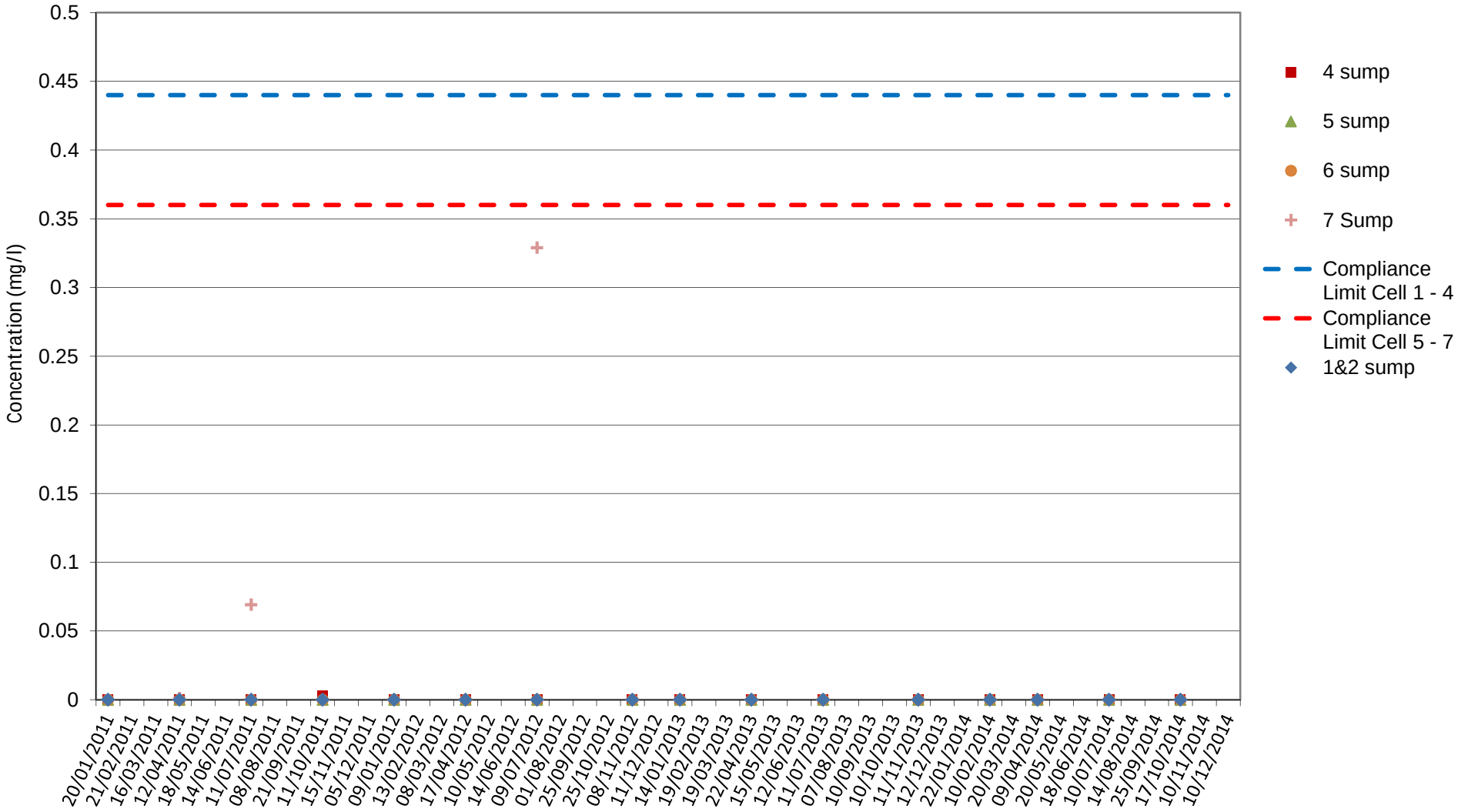


Figure 10: Recorded Concentrations of Cadmium in Site Leachates, January 2011 to December 2014

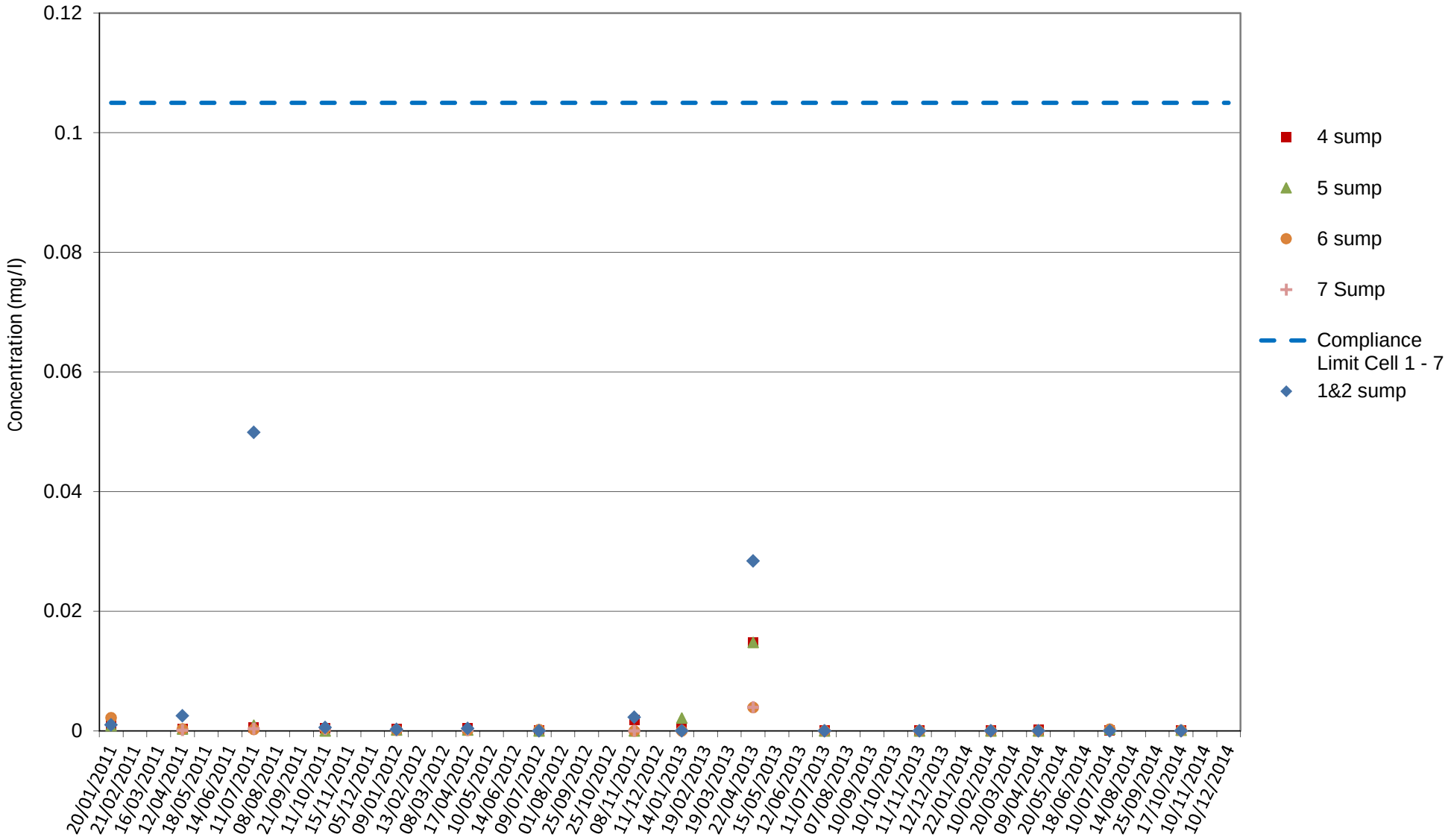


Figure 11: Recorded Concentrations of Suspended Solids in Surface Waters, January 2011 to December 2014

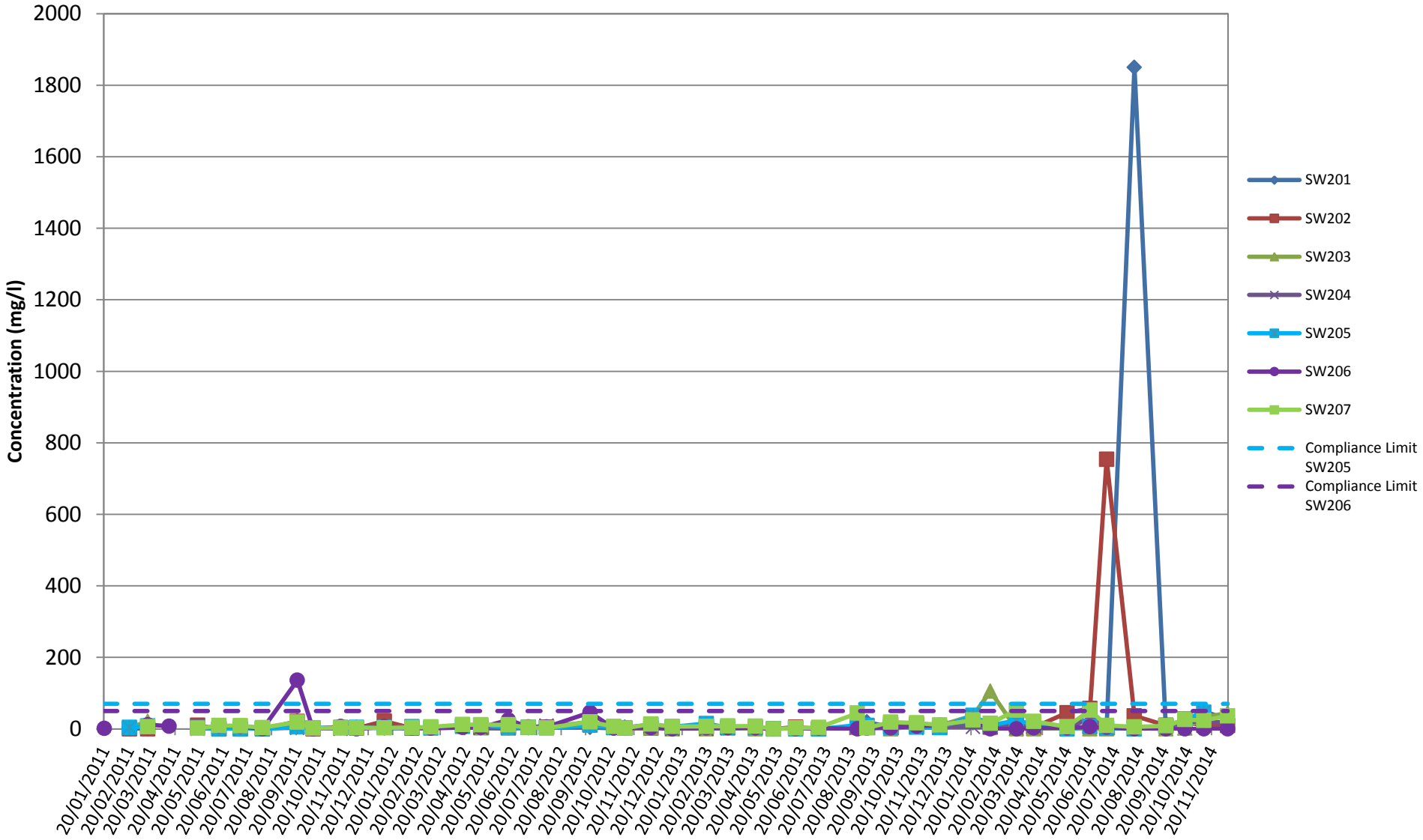


Figure 12: Recorded Concentrations of Ammoniacal Nitrogen in Surface Waters, January 2011 to December 2014

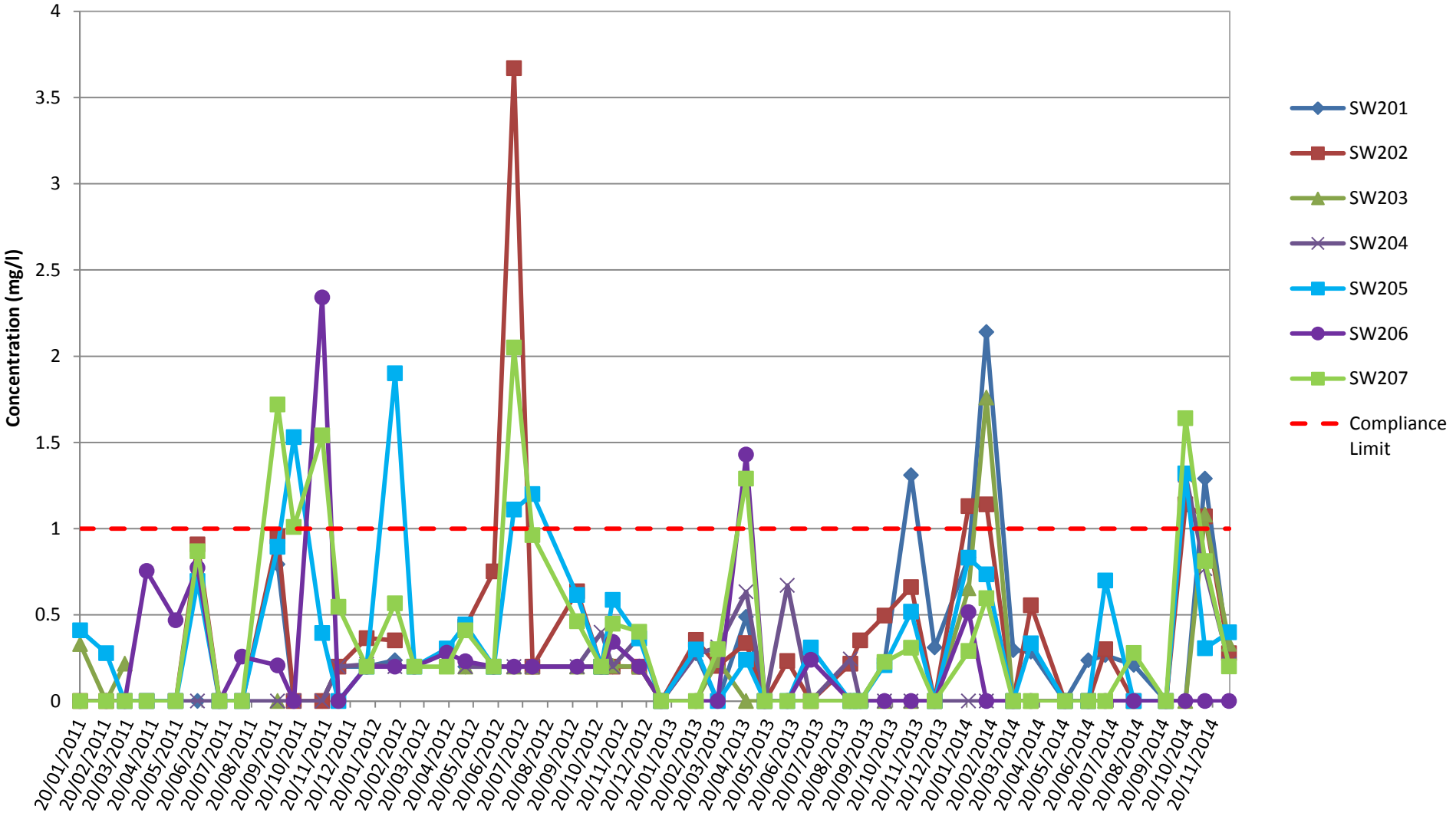


Figure 13 - Recorded Concentrations of Chloride in Surface Water, January 2011 to December 2014

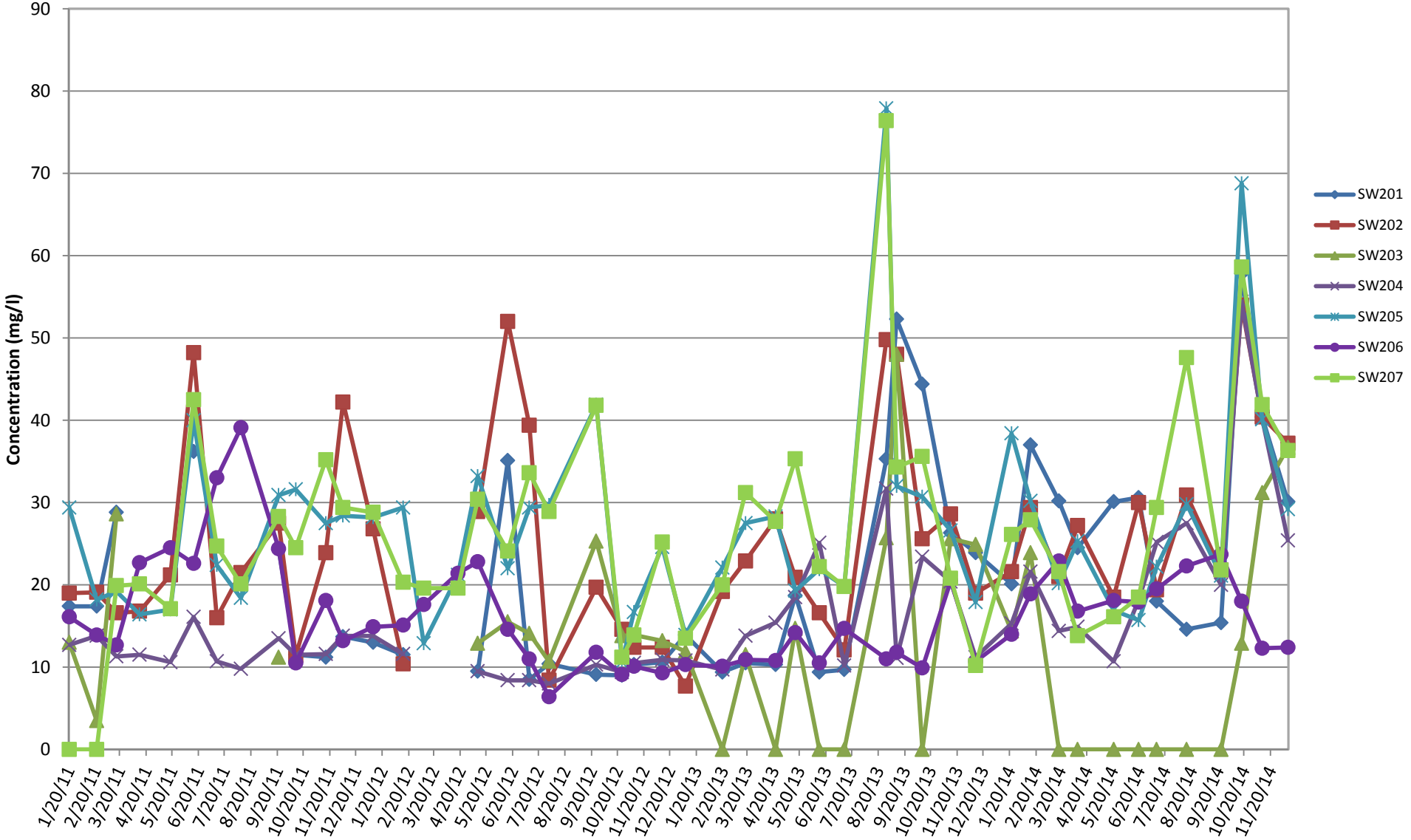


Figure 14: Recorded Concentrations of Mecoprop in Surface Waters, January 2011 to December 2014

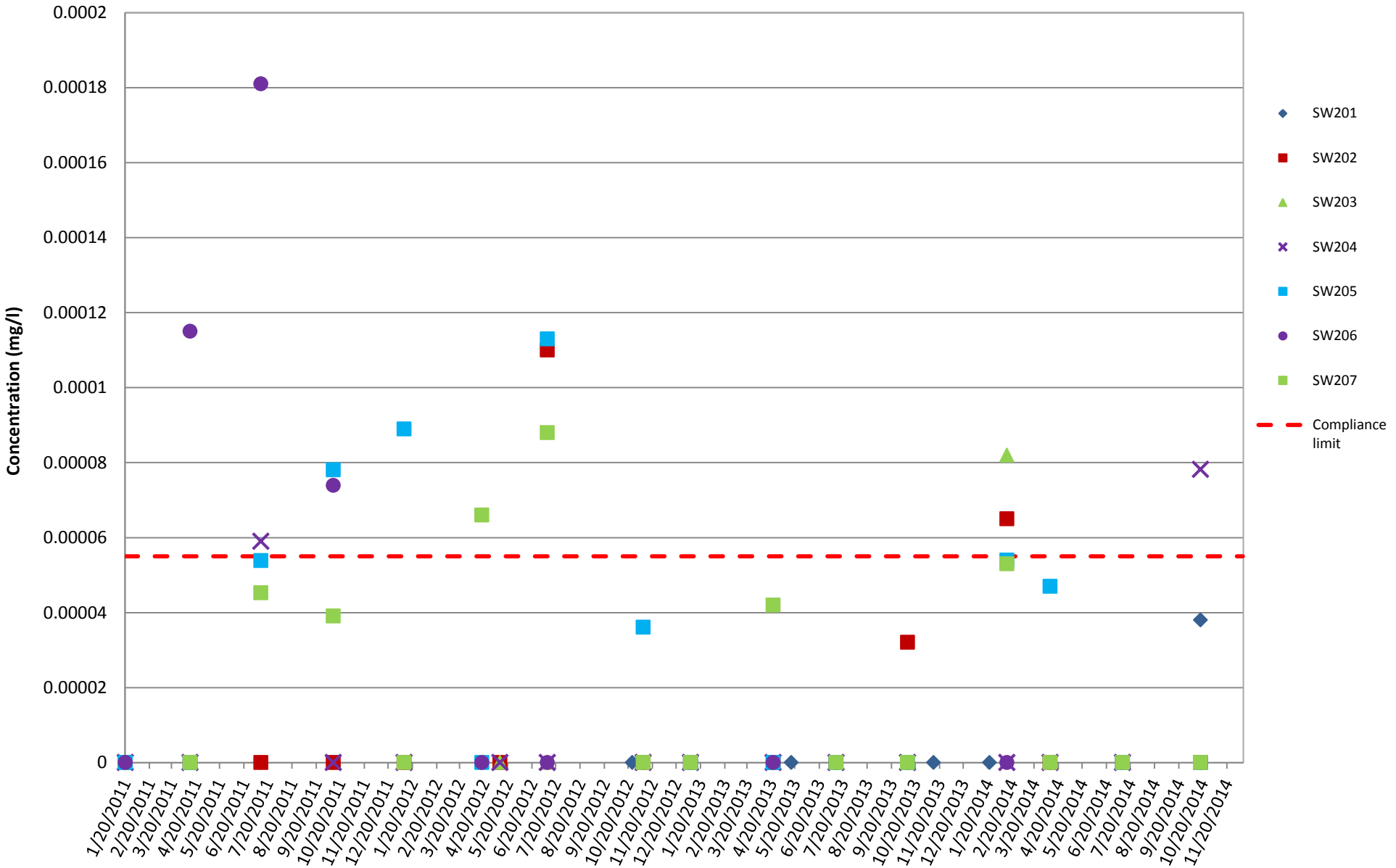


Figure 15 - Recorded Concentrations of Ammoniacal Nitrogen in Groundwater and Underdrainage, January 2011 to December 2014

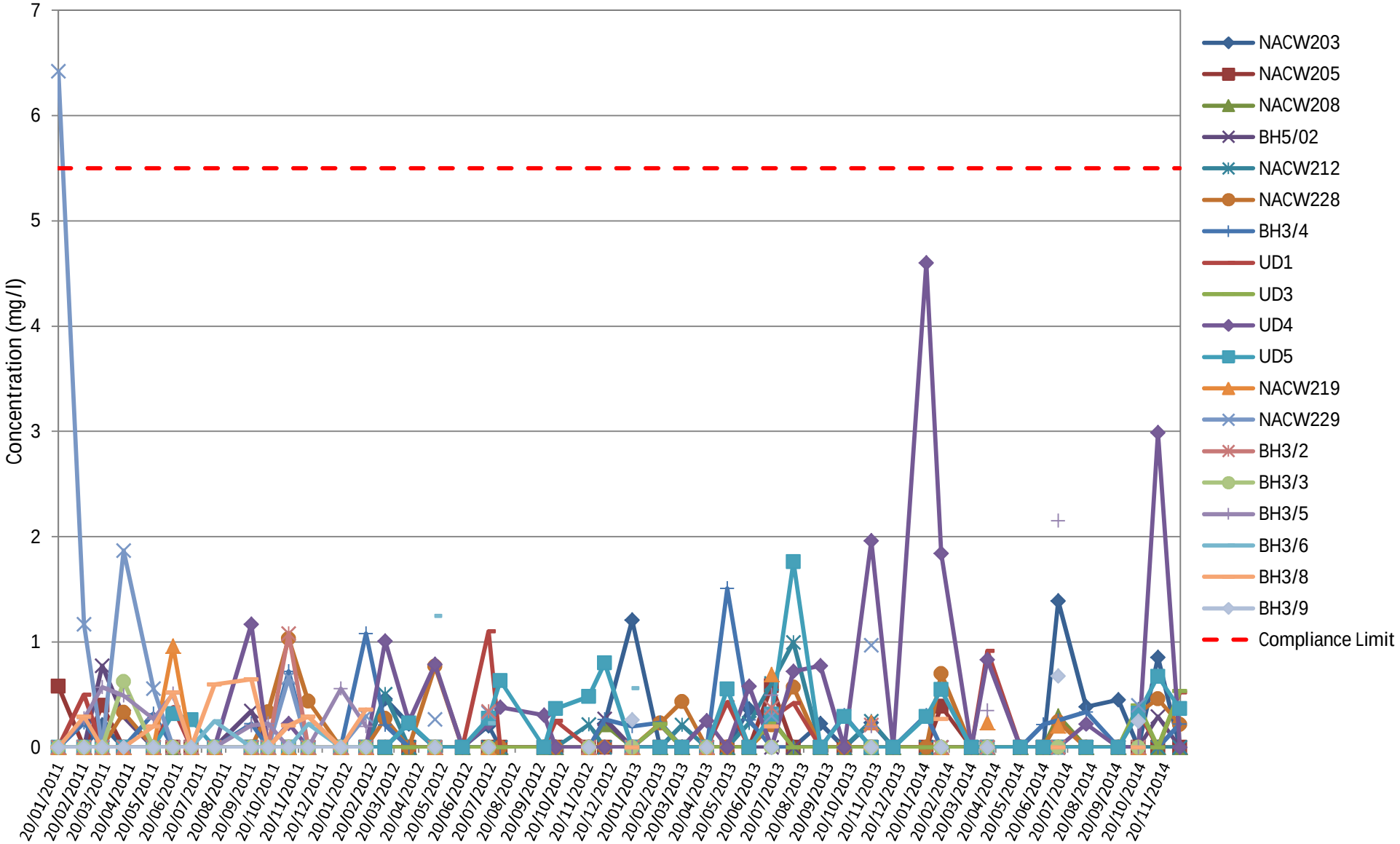


Figure 16 - Recorded Concentrations of Chloride in Groundwater and Underdrainage, January 2011 to December 2014

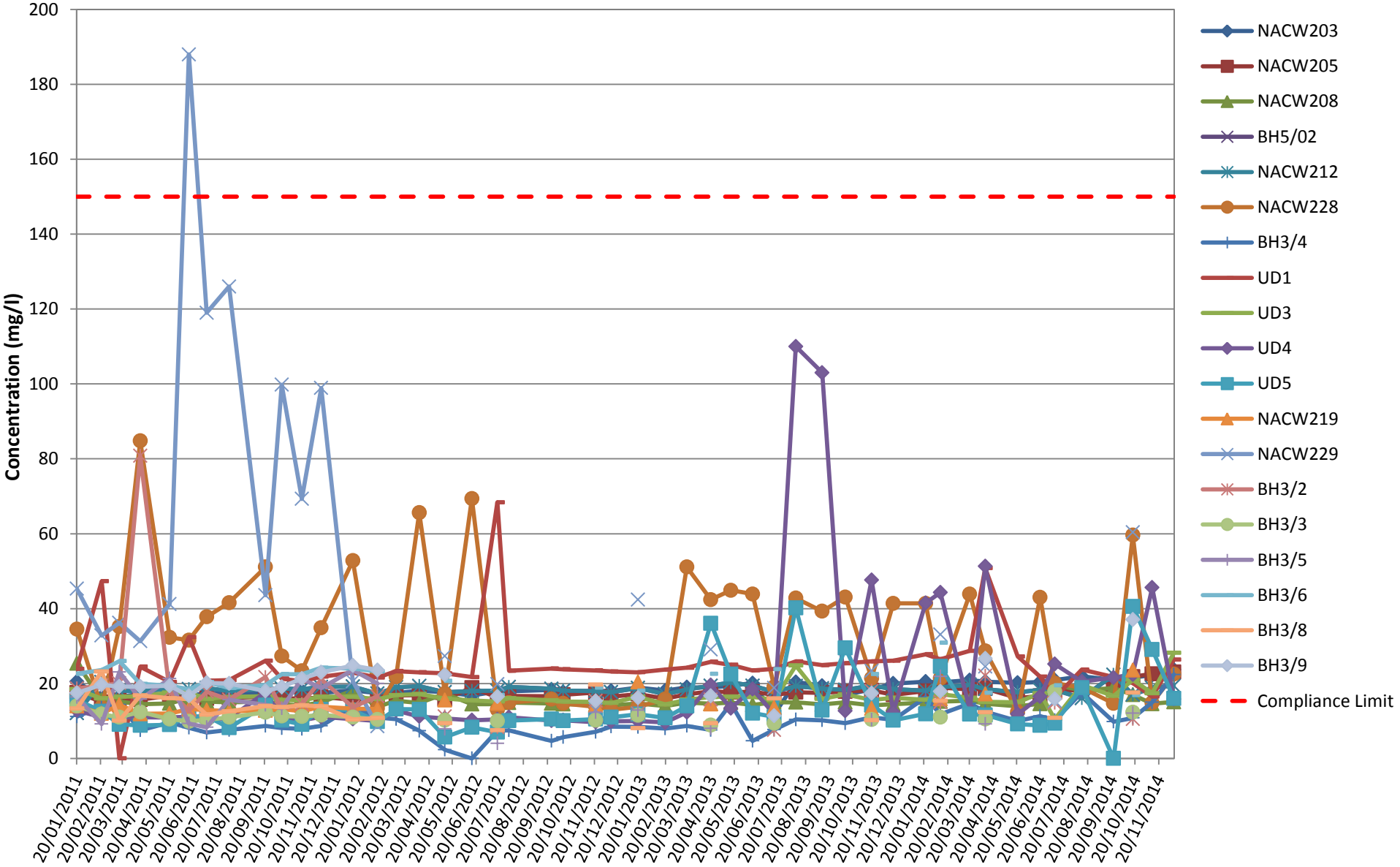


Figure 17 - Recorded Concentrations of Mecoprop in Groundwater and Underdrainage, January 2011 to December 2014

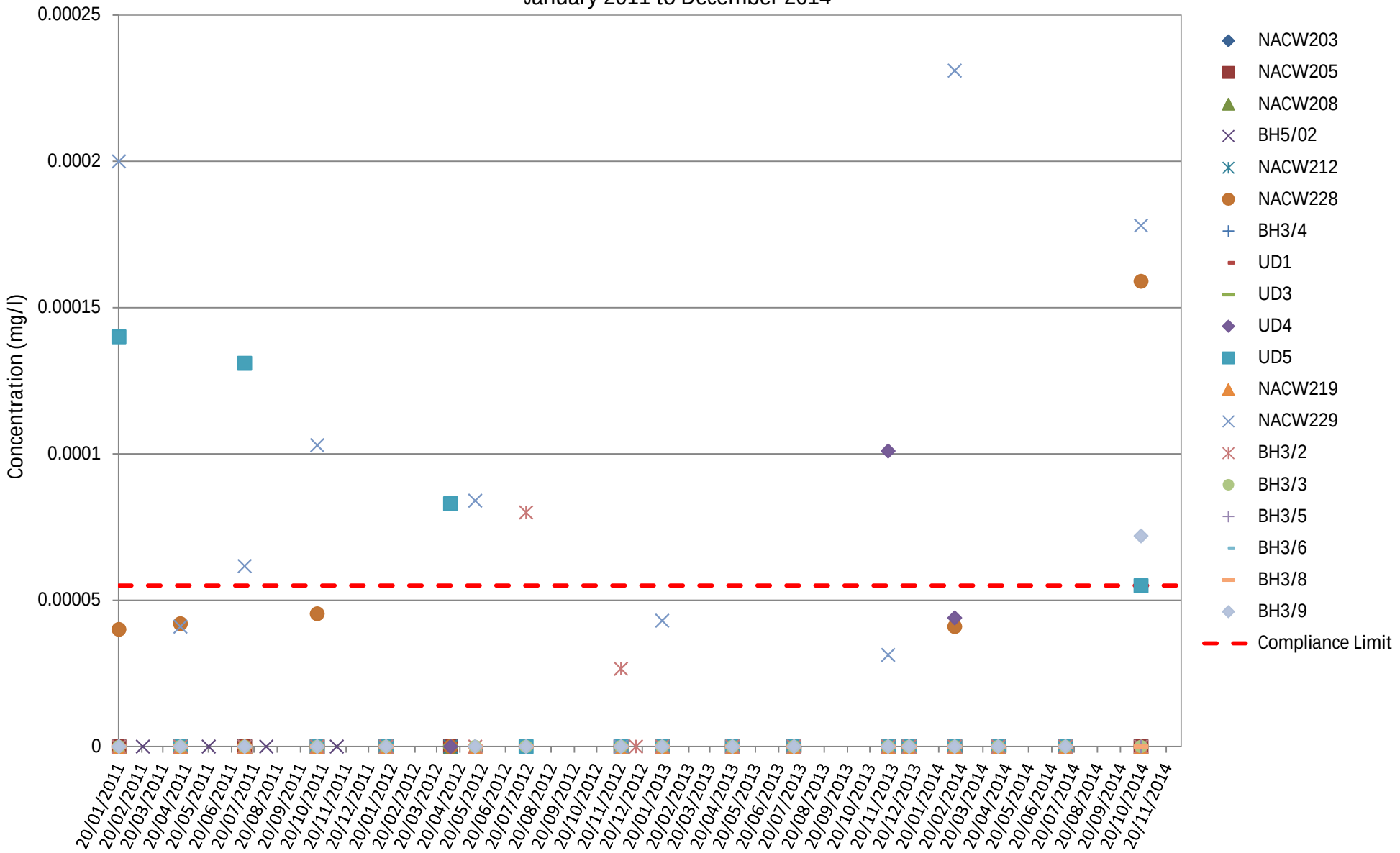


Figure 18 - Recorded Concentrations of Cadmium in Groundwaters and Underdrainage, January 2011 to December 2014

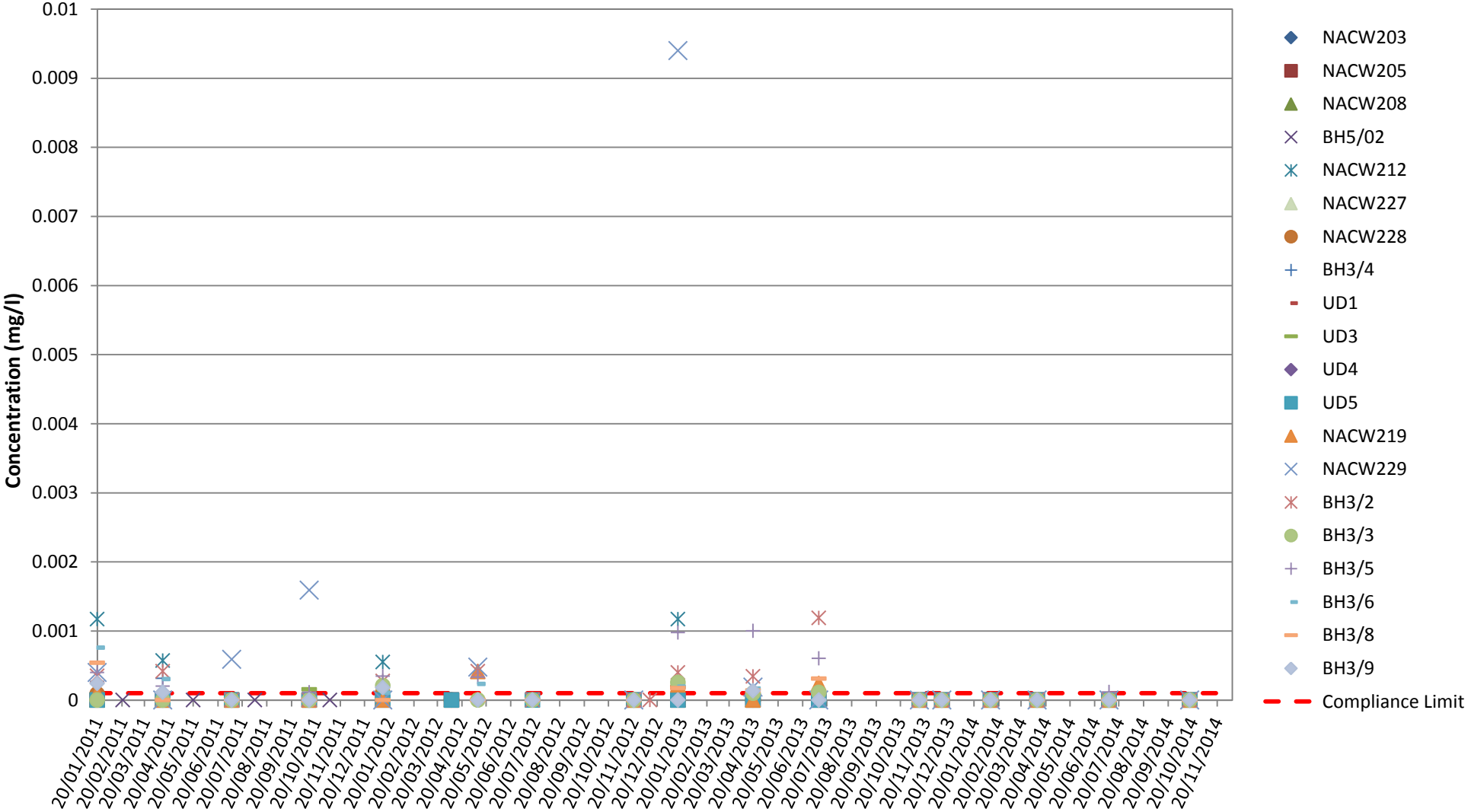
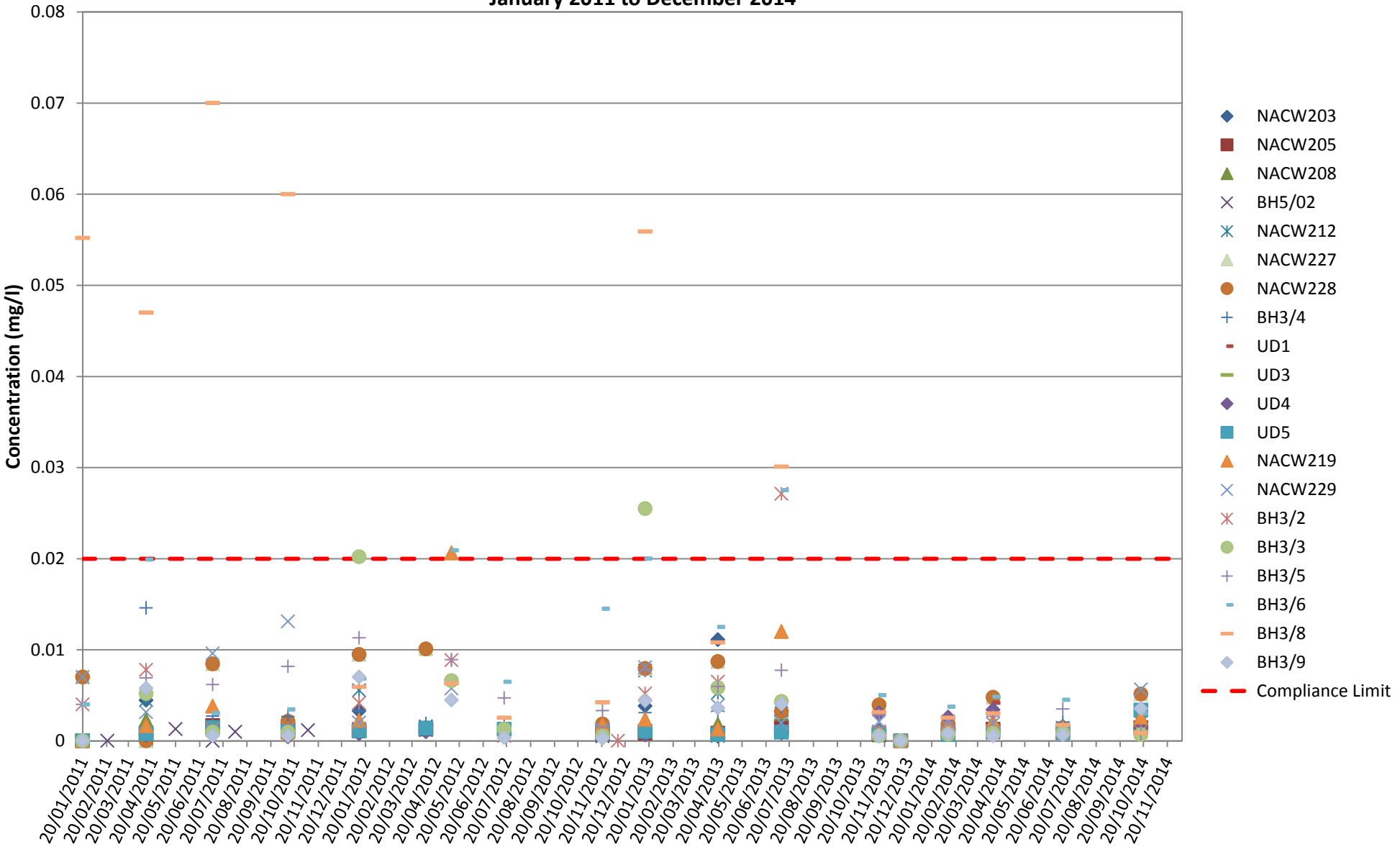


Figure 19 - Recorded Concentrations of Nickel in Groundwaters and Underdrainage, January 2011 to December 2014



TABLES

Table 4.1: Leachate Heads Recorded During 2014.

Leachate Thickness												
	21/01/2014	10/02/2014	18/03/2014	09/04/2014	21/05/2014	19/06/2014	10/07/2014	14/08/2014	25/09/2014	17/01/2014	11/11/2014	09/12/2014
Cell Sumps (m above base of liner)												
Phase 2 Cell 1-2 Sump	0.90	0.80	1.00	0.90	1.15	1.24	1.24	1.34	0.90	1.20	1.10	1.10
Phase 2 - Cell 3/4 Sump	0.65	0.50	0.70	0.70	0.80	0.80	0.80	1.10	0.70	0.60	0.72	0.80
Phase 2 - Cell 5 Sump	0.00	0.20	0.26	0.30	0.20	0.20	0.20	0.20	0.30	0.38	0.48	0.90
Phase 3 - Cell 6 Sump	0.50	0.40	0.50	0.80	0.30	0.50	0.50	0.40	0.80	0.89	0.90	0.92
Phase 3 - Cell 7 Sump	0.30	0.30	0.40	0.60	0.40	0.30	0.30	0.50	0.60	0.51	0.54	0.52
In Waste Boreholes												
M1A	0.50	0.48	0.40	0.40	1.02	0.52	0.52	0.32	0.40	0.30	0.38	0.40
M1B	0.30	0.40	0.40	0.30	0.12	0.15	0.15	0.38	0.30	0.30	0.26	0.29
M2A	0.40	0.35	0.33	0.28	0.32	0.40	0.40	0.50	0.28	0.30	0.25	0.30
M2B	0.40	0.31	0.35	0.29	0.31	0.30	0.30	0.40	0.29	0.30	0.35	0.35
M3A	0.20	0.20	0.30	0.30	0.30	0.93	0.93	1.03	0.30	0.35	0.30	0.40
M3B	0.40	0.30	0.30	0.40	0.30	0.40	0.40	0.60	0.40	0.40	0.43	0.45
M4A	0.14	0.23	0.24	0.26	0.30	0.35	0.35	0.37	0.26	0.25	0.25	0.27
M4B	0.22	0.30	0.34	0.34	0.30	0.40	0.40	0.40	0.34	0.35	0.30	0.33
Phase 2 - LMP5A	0.20	0.10	0.20	0.30	0.30	0.30	0.30	0.20	0.30	0.30	0.30	0.30
Phase 2 - LMP5B	0.30	0.10	0.20	0.20	0.32	0.35	0.35	0.40	0.20	0.20	0.30	0.20

Table 4.2: Summary of Compliance Monitoring, Site Leachate 2014

Monthly Monitoring									
Borehole	**Determinand**	**LOD (mg/l)**	**n**	**No. > LOD**	**Mean (mg/l)**	**Min (mg/l)**	**Max (mg/l)**	**Compliance Limit (mg/l)**	**No. > Compliance Limit**
1 & 2 Sump	Ammonaical Nitrogen	0.2	12	12	1498	468	2760	3640	0
4 Sump	Ammonaical Nitrogen	0.2	12	12	908	458	1390	3640	0
5 Sump	Ammonaical Nitrogen	0.2	12	12	1087	484	1650	3640	0
6 Sump	Ammonaical Nitrogen	0.2	12	12	1212	488	2520	3640	0
7 Sump	Ammonaical Nitrogen	0.2	12	12	986	155	1700	3640	0
1 & 2 Sump	Chloride	<2	12	12	5357	1120	12100	19000	0
4 Sump	Chloride	<2	12	12	2071	1210	4530	19000	0
5 Sump	Chloride	<2	12	12	3361	906	6470	19000	0
6 Sump	Chloride	<2	12	12	2204	945	5160	19000	0
7 Sump	Chloride	<2	12	12	2101	706	3660	19000	0
1 & 2 Sump	Electrical Conductivity	-	12	12	22548	7450	42800	None Specified	0
4 Sump	Electrical Conductivity	-	12	12	12141	6970	19700	None Specified	0
5 Sump	Electrical Conductivity	-	12	12	16221	7020	24800	None Specified	0
6 Sump	Electrical Conductivity	-	12	12	14462	6000	24800	None Specified	0
7 Sump	Electrical Conductivity	-	12	12	13746	4910	20100	None Specified	0
Quarterly Monitoring									
1 & 2 Sump	4-Methylphenol	<0.001	4	3	0.025	0.024	0.027	1.6	0
4 Sump	4-Methylphenol	<0.001	4	1	0.121	0.121	0.121	1.6	0
5 Sump	4-Methylphenol	<0.001	4	1	0.171	0.171	0.171	0.126	1
6 Sump	4-Methylphenol	<0.001	4	3	0.846	0.099	2.300	0.126	2
7 Sump	4-Methylphenol	<0.001	4	2	0.306	0.016	0.595	0.126	1
1 & 2 Sump	Cadmium	<0.0001	4	0	0.000	0.000	0.000	0.105	0
4 Sump	Cadmium	<0.0001	4	2	0.000	0.000	0.000	0.105	0
5 Sump	Cadmium	<0.0001	4	2	0.000	0.000	0.000	0.105	0
6 Sump	Cadmium	<0.0001	4	2	0.000	0.000	0.000	0.105	0
7 Sump	Cadmium	<0.0001	4	0	0.000	0.000	0.000	0.105	0
1 & 2 Sump	Dichlomethane	<0.003	4	0	0.003	0.003	0.003	0.033	0
4 Sump	Dichlomethane	<0.003	4	0	0.003	0.003	0.003	0.033	0
5 Sump	Dichlomethane	<0.003	4	0	0.003	0.003	0.003	0.066	0
6 Sump	Dichlomethane	<0.003	4	0	0.003	0.003	0.003	0.066	0

7 Sump	Dichlomethane	<0.003	4	0	0.003	0.003	0.003	0.066	0
1 & 2 Sump	Diethyphthalate	<0.001	4	0	0.001	0.001	0.001	0.44	0
4 Sump	Diethyphthalate	<0.001	4	0	0.001	0.001	0.001	0.44	0
5 Sump	Diethyphthalate	<0.001	4	0	0.001	0.001	0.001	0.36	0
6 Sump	Diethyphthalate	<0.001	4	0	0.001	0.001	0.001	0.36	0
7 Sump	Diethyphthalate	<0.001	4	0	0.001	0.001	0.001	0.36	0
1 & 2 Sump	Mecoprop	0.000025	4	4	0.063	0.023	0.161	0.071	1
4 Sump	Mecoprop	0.000025	4	4	0.039	0.022	0.058	0.071	0
5 Sump	Mecoprop	0.000025	4	4	0.040	0.026	0.068	0.14	0
6 Sump	Mecoprop	0.000025	4	4	0.043	0.029	0.050	0.14	0
7 Sump	Mecoprop	0.000025	4	4	0.031	0.021	0.043	0.14	0

Table 4.3: Summary of Compliance Monitoring, Surface Waters, 2014

Monthly Monitoring								
Borehole	**Determinand**	**n**	**Number > LOD**	**Mean**	**Min**	**Max**	**Compliance Limit**	**No. > CL**
SW201	Ammoniacal Nitrogen	12	9	0.64	0.21	2.14	None Specified	
SW202	Ammoniacal Nitrogen	12	7	0.80	0.28	1.14	None Specified	
SW203	Ammoniacal Nitrogen	5	4	0.96	0.33	1.76	None Specified	
SW204	Ammoniacal Nitrogen	12	3	0.76	0.21	1.31	None Specified	
SW205	Ammoniacal Nitrogen	12	7	0.66	0.31	1.32	1	1
SW206	Ammoniacal Nitrogen	12	1	0.52	0.52	0.52	1	0
SW207	Ammoniacal Nitrogen	12	6	0.64	0.20	1.64	None Specified	
SW201	Chloride	12	12	29.07	14.60	57.80	None Specified	
SW202	Chloride	12	12	29.28	18.50	54.00	None Specified	
SW203	Chloride	5	5	23.82	12.90	36.70	None Specified	
SW204	Chloride	12	12	23.98	10.70	54.40	None Specified	
SW205	Chloride	12	12	29.83	15.70	68.80	150	0
SW206	Chloride	12	12	18.07	12.30	23.70	150	0
SW207	Chloride	12	12	29.97	13.80	58.60	None Specified	
SW201	Electrical Conductivity	12	11	0.36	0.17	0.70	None Specified	
SW202	Electrical Conductivity	12	12	1.68	0.22	15.90	None Specified	
SW203	Electrical Conductivity	5	3	0.28	0.13	0.46	None Specified	
SW204	Electrical Conductivity	12	9	0.32	0.17	0.66	None Specified	
SW205	Electrical Conductivity	12	12	0.39	0.23	0.81	None Specified	
SW206	Electrical Conductivity	12	1	0.15	0.12	0.21	None Specified	
SW207	Electrical Conductivity	12	12	0.36	0.23	0.69	None Specified	
SW201	pH	12	12	7.82	7.15	8.17	None Specified	
SW202	pH	12	11	7.93	7.66	8.14	None Specified	
SW203	pH	5	5	7.77	7.55	8.00	None Specified	
SW204	pH	12	12	7.93	7.63	8.16	None Specified	
SW205	pH	12	12	7.95	7.72	8.31	6 to 9	0
SW206	pH	12	12	7.59	7.41	7.79	6 to 9	0
SW207	pH	12	12	7.94	7.66	8.23	None Specified	
SW201	Suspended Solids	12	11	186.45	4.00	1850.00	None Specified	
SW202	Suspended Solids	12	12	82.83	4.00	754.00	None Specified	

SW203	Suspended Solids	5	5	44.20	2.00	105.00	None Specified	
SW204	Suspended Solids	12	11	11.95	2.00	30.00	None Specified	
SW205	Suspended Solids	11	9	19.15	2.00	46.00	70	0
SW206	Suspended Solids	12	5	8.20	2.50	25.00	50	0
SW207	Suspended Solids	12	12	23.37	5.50	52.00	None Specified	
Quarterly Monitoring								
Borehole	**Determinand**	**n**	**Number > LOD**	**Mean**	**Min**	**Max**	**Compliance Limit**	**No. > CL**
SW201	4-Methylphenol	4	0	-	5.0E-04	1.0E-03	None Specified	0
SW202	4-Methylphenol	4	0	-	5.0E-04	5.0E-04	None Specified	0
SW203	4-Methylphenol	2	0	-	5.0E-04	5.0E-04	None Specified	0
SW204	4-Methylphenol	4	0	-	5.0E-04	5.0E-04	None Specified	0
SW205	4-Methylphenol	4	0	-	5.0E-04	5.0E-04	0.001	0
SW206	4-Methylphenol	4	0	-	5.0E-04	1.0E-03	0.001	0
SW207	4-Methylphenol	4	0	-	1.0E-03	1.0E-03	None Specified	0
SW201	Cadmium	4	0	-	1.0E-04	1.0E-04	None Specified	0
SW202	Cadmium	4	0	-	1.0E-04	1.0E-04	None Specified	0
SW203	Cadmium	2	0	-	1.0E-04	1.0E-04	None Specified	0
SW204	Cadmium	4	0	-	1.0E-04	1.0E-04	None Specified	0
SW205	Cadmium	4	0	-	1.0E-04	1.0E-04	0.0001	0
SW206	Cadmium	4	0	-	1.0E-04	1.0E-04	0.0001	0
SW207	Cadmium	4	0	-	1.0E-04	1.0E-04	None Specified	0
SW201	Dichlomethane	4	0	-	3.0E-03	3.0E-03	None Specified	0
SW202	Dichlomethane	4	0	-	3.0E-03	3.0E-03	None Specified	0
SW203	Dichlomethane	2	0	-	3.0E-03	3.0E-03	None Specified	0
SW204	Dichlomethane	4	0	-	3.0E-03	3.0E-03	None Specified	0
SW205	Dichlomethane	4	0	-	3.0E-03	3.0E-03	0.002	0
SW206	Dichlomethane	4	0	-	3.0E-03	3.0E-03	0.002	0
SW207	Dichlomethane	4	0	-	3.0E-03	3.0E-03	None Specified	0
SW201	Diethyphthalate	4	0	-	1.0E-03	1.0E-03	None Specified	0
SW202	Diethyphthalate	4	0	-	1.0E-03	1.0E-03	None Specified	0
SW203	Diethyphthalate	2	0	-	1.0E-03	1.0E-03	None Specified	0
SW204	Diethyphthalate	4	0	-	1.0E-03	1.0E-03	None Specified	0

SW205	Diethyphthalate	4	0	-	1.0E-03	1.0E-03	0.003	0
SW206	Diethyphthalate	4	0	-	1.0E-03	1.0E-03	0.003	0
SW207	Diethyphthalate	4	0	-	1.0E-03	1.0E-03	None Specified	0
SW201	Mecoprop	4	1	0.000112	1.1E-04	1.1E-04	None Specified	0
SW202	Mecoprop	4	1	0.00004	4.0E-05	6.5E-05	None Specified	0
SW203	Mecoprop	2	1	0.00004	8.2E-05	8.2E-05	None Specified	0
SW204	Mecoprop	4	1	0.00004	7.8E-05	7.8E-05	None Specified	0
SW205	Mecoprop	4	2	0.00004	4.7E-05	5.4E-05	0.000055	0
SW206	Mecoprop	4	0	0.00004	4.0E-05	4.0E-05	0.000055	0

Note: sampling location SW203 was dry for 7 months (March-September inclusive) during 2014

Table 4.4: Groundwater Elevations Recorded During 2014.

Borehole	Cover Elevation (m AOD)	Groundwater Elevation (m AOD)											
		21/01/2014	10/02/2014	18/03/2014	09/04/2014	21/05/2014	19/06/2014	10/07/2014	14/08/2014	25/09/2014	17/10/2014	11/11/2014	09/12/2014
NACW203	133.60	132.68	132.74	132.55	132.48	132.33	132.04	131.68	131.51	131.00	131.80	132.59	132.65
NACW205	130.20	129.34	129.35	129.22	129.24	129.18	129.11	129.00	128.82	128.61	128.58	129.19	129.23
NACW208	124.00	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
BH5/02	126.50	124.55	124.56	124.53	124.39	124.21	124.14	124.36	124.31	124.23	124.42	124.61	124.86
NACW212	119.80	118.50	118.60	118.45	118.50	118.56	118.60	118.70	118.57	118.60	118.60	118.70	118.60
NACW227	134.80	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
NACW228	134.80	130.52	130.54	130.04	129.94	130.22	130.18	130.12	130.01	129.88	130.41	130.46	130.66
BH3/4	138.12	137.69	137.70	137.30	137.52	137.35	136.66	136.61	136.52	136.41	137.23	137.50	137.49
NACW219	133.10	128.20	127.76	128.14	128.12	127.96	127.89	127.52	127.42	133.10	128.71	128.84	128.91
NACW229	135.00	134.33	134.19	133.99	133.84	133.26	133.12	133.08	132.94	132.76	133.22	134.10	134.24
BH3/2	142.41	141.02	141.24	140.91	141.23	139.41	138.81	138.79	138.77	138.69	139.52	141.01	141.07
BH3/3	146.85	146.85	146.85	146.85	146.85	146.85	146.85	146.85	146.72	146.61	146.85	146.85	146.85
BH3/5	141.10	139.00	139.04	138.90	138.28	137.81	137.16	137.15	137.12	137.00	137.91	139.00	139.02
BH3/6	140.53	136.55	136.58	136.55	136.16	135.71	135.25	135.33	135.17	135.02	135.93	136.61	136.75
BH3/8	139.79	138.45	138.44	138.36	138.10	137.64	136.99	137.01	136.98	136.82	137.59	138.43	138.55
BH3/9	143.24	141.12	141.29	141.24	141.44	139.67	139.38	140.81	140.66	140.58	139.76	141.14	141.26
BH3/1	137.99	137.36	137.39	137.24	137.19	136.68	136.54	136.47	136.37	136.22	136.71	137.36	137.39
BH3/10	144.54	143.60	143.59	143.52	143.59	143.50	142.25	142.21	142.15	142.06	143.34	143.57	143.66
BH3/11	139.88	139.17	139.20	138.99	138.96	138.04	137.90	137.79	137.67	137.55	138.06	139.16	139.07
NACW201	135.50	132.30	133.24	133.20	133.29	132.77	132.72	132.68	132.71	132.65	132.55	132.49	132.63
NACW202	135.10	131.92	132.78	132.67	132.65	132.32	132.26	132.19	132.17	132.09	132.18	132.03	132.36
NACW204	133.10	130.43	130.46	130.27	130.18	130.20	129.99	129.49	129.39	129.30	130.18	130.42	130.67
NACW213	122.30	120.50	120.61	120.49	120.51	119.97	119.88	119.87	119.84	119.69	120.10	120.54	120.66
NACW215	132.50	128.26	128.28	128.17	128.11	128.06	128.00	128.01	127.98	132.50	132.50	132.50	132.50
NACW216	N/A	5.36	5.34	5.39	5.41	5.62	5.71	5.73	5.72	0.00	0.00	0.00	0.00
NACW230	134.10	133.39	133.29	133.15	133.21	132.86	132.78	132.76	132.64	132.52	132.72	132.90	132.98

Figures in parentheses indicate water depth in m below ground level (bgl) where cover elevation un available

Table 4.5: Summary of Compliance Monitoring, Groundwaters, 2014

Monthly Monitoring									
Borehole	**Determinand**	**LOD (mg/l)**	**n**	**Number > LOD**	**Mean**	**Max**	**Max**	**Compliance Limit**	**No. > CL**
BH5/02	Ammoniacal Nirtogen as N	<0.2	12	1	0.29	0.29	0.29	5.5	0
NACW203	Ammoniacal Nitrogen as N	<0.2	12	4	0.77	0.39	1.39	5.5	0
NACW205	Ammoniacal Nitrogen as N	<0.2	12	1	0.39	0.39	0.39	5.5	0
NACW208	Ammoniacal Nitrogen as N	<0.2	12	1	0.30	0.30	0.30	5.5	0
NACW212	Ammoniacal Nitrogen as N	<0.2	12	0	0.20	0.00	0.00	5.5	0
NACW227	Ammoniacal Nitrogen as N	<0.2	2	0	0.20	0.00	0.00	5.5	0
NACW228	Ammoniacal Nitrogen as N	<0.2	12	5	0.39	0.22	0.70	5.5	0
BH3/4	Ammoniacal Nitrogen as N	<0.2	12	6	0.28	0.22	0.36	5.5	0
UD1	Ammoniacal Nitrogen as N	<0.2	11	4	0.59	0.34	0.92	5.5	0
UD2	Ammoniacal Nitrogen as N	<0.2	-	-	-	-	-	5.5	0
UD3	Ammoniacal Nitrogen as N	<0.2	12	2	0.47	0.40	0.53	5.5	0
UD4	Ammoniacal Nitrogen as N	<0.2	12	5	2.10	0.22	4.60	5.5	0
UD5	Ammoniacal Nitrogen as N	<0.2	11	6	0.44	0.29	0.67	5.5	0
NACW219	Ammoniacal Nitrogen as N	<0.2	4	10	0.22	0.21	0.23	5.5	0
NACW229	Ammoniacal Nitrogen as N	<0.2	4	9	0.40	0.40	0.40	5.5	0
BH3/2	Ammoniacal Nitrogen as N	<0.2	4	8	0.20	0.00	0.00	5.5	0
BH3/3	Ammoniacal Nitrogen as N	<0.2	4	8	0.20	0.00	0.00	5.5	0
BH3/5	Ammoniacal Nitrogen as N	<0.2	4	10	1.25	0.35	2.15	5.5	0
BH3/6	Ammoniacal Nitrogen as N	<0.2	4	8	0.20	0.00	0.00	5.5	0
BH3/8	Ammoniacal Nitrogen as N	<0.2	4	9	0.27	0.27	0.27	5.5	0
BH3/9	Ammoniacal Nitrogen as N	<0.2	4	10	0.46	0.25	0.68	5.5	0
NACW203	Chloride	<0.005	12	12	21.18	20.20	23.70	150	0
NACW205	Chloride	<0.005	12	12	19.09	16.10	23.10	150	0
NACW208	Chloride	<0.005	12	12	16.00	13.90	19.70	150	0
BH5/02	Chloride	<0.005	12	12	18.61	16.10	22.30	150	0
NACW212	Chloride	<0.005	12	12	21.16	14.40	36.90	150	0
NACW227	Chloride	<0.005	2	2	18.80	15.00	22.60	150	0
NACW228	Chloride	<0.005	12	12	28.45	12.40	59.60	150	0
BH3/4	Chloride	<0.005	12	12	13.53	9.80	22.40	150	0
UD1	Chloride	<0.005	12	12	25.62	16.20	50.80	150	0

UD2	Chloride	<0.005	-	-	-	-	-	150	0
UD3	Chloride	<0.005	12	12	17.50	10.50	28.20	150	0
UD4	Chloride	<0.005	12	12	27.47	11.80	51.30	150	0
UD5	Chloride	<0.005	11	12	17.45	8.80	40.60	150	0
NACW219	Chloride	<0.005	4	12	18.68	15.90	23.60	150	0
NACW229	Chloride	<0.005	4	12	33.33	15.30	60.40	150	0
BH3/2	Chloride	<0.005	4	12	15.60	10.50	22.10	150	0
BH3/3	Chloride	<0.005	4	12	12.93	10.50	17.90	150	0
BH3/5	Chloride	<0.005	4	12	14.78	9.20	21.90	150	0
BH3/6	Chloride	<0.005	4	12	21.20	16.90	30.90	150	0
BH3/8	Chloride	<0.005	4	12	14.03	10.80	17.60	150	0
BH3/9	Chloride	<0.005	4	12	24.40	15.90	37.10	150	0
NACW203	Electrical Conductivity	<2	12	12	473.83	457.00	494.00	None Specified	0
NACW205	Electrical Conductivity	<2	12	12	447.50	386.00	475.00	None Specified	0
NACW208	Electrical Conductivity	<2	12	12	437.83	405.00	453.00	None Specified	0
BH5/02	Electrical Conductivity	<2	12	12	389.83	139.00	452.00	None Specified	0
NACW212	Electrical Conductivity	<2	12	12	286.75	187.00	441.00	None Specified	0
NACW227	Electrical Conductivity	<2	2	2	244.50	168.00	321.00	None Specified	0
NACW228	Electrical Conductivity	<2	12	12	345.67	145.00	786.00	None Specified	0
BH3/4	Electrical Conductivity	<2	12	12	307.00	182.00	465.00	None Specified	0
UD1	Electrical Conductivity	<2	11	12	434.36	275.00	721.00	None Specified	0
UD2	Electrical Conductivity	<2	-	-	-	-	-	None Specified	0
UD3	Electrical Conductivity	<2	12	12	349.17	233.00	414.00	None Specified	0
UD4	Electrical Conductivity	<2	12	12	446.25	292.00	728.00	None Specified	0
UD5	Electrical Conductivity	<2	11	12	303.73	171.00	645.00	None Specified	0
NACW219	Electrical Conductivity	<2	4	12	353.50	320.00	436.00	None Specified	0
NACW229	Electrical Conductivity	<2	4	12	416.50	202.00	783.00	None Specified	0
BH3/2	Electrical Conductivity	<2	4	12	266.50	180.00	436.00	None Specified	0
BH3/3	Electrical Conductivity	<2	4	12	308.75	156.00	480.00	None Specified	0
BH3/5	Electrical Conductivity	<2	4	12	293.75	176.00	457.00	None Specified	0
BH3/6	Electrical Conductivity	<2	4	12	283.00	253.00	310.00	None Specified	0
BH3/8	Electrical Conductivity	<2	4	12	198.75	100.00	301.00	None Specified	0
BH3/9	Electrical Conductivity	<2	4	12	323.75	190.00	484.00	None Specified	0

Quarterly Monitoring									
NACW203	4-methylphenol	<0.001	4	0		1.00E-03	1.00E-03	1.00E-02	0
NACW205	4-methylphenol	<0.001	4	0		1.0E-03	1.0E-03	1.0E-02	0
NACW208	4-methylphenol	<0.001	4	0		1.0E-03	1.0E-03	1.0E-02	0
BH5/02	4-methylphenol	<0.001	4	0		1.0E-03	1.0E-03	1.0E-02	0
NACW212	4-methylphenol	<0.001	4	0		1.0E-03	1.0E-03	1.0E-02	0
NACW227	4-methylphenol	<0.001	0	0		1.0E-03	1.0E-03	1.0E-02	0
NACW228	4-methylphenol	<0.001	4	0		1.0E-03	1.0E-03	1.0E-02	0
BH3/4	4-methylphenol	<0.001	4	0		1.0E-03	1.0E-03	1.0E-02	0
UD1	4-methylphenol	<0.001	4	0		1.0E-03	1.0E-03	1.0E-02	0
UD2	4-methylphenol	<0.001	0	0		1.0E-03	1.0E-03	1.0E-02	0
UD3	4-methylphenol	<0.001	4	0		1.0E-03	1.0E-03	1.0E-02	0
UD4	4-methylphenol	<0.001	4	0		1.0E-03	1.0E-03	1.0E-02	0
UD5	4-methylphenol	<0.001	4	0		1.0E-03	1.0E-03	1.0E-02	0
NACW219	4-methylphenol	<0.001	4	0		1.0E-03	1.0E-03	None Specified	0
NACW229	4-methylphenol	<0.001	4	0		1.0E-03	1.0E-03	None Specified	0
BH3/2	4-methylphenol	<0.001	4	0		1.0E-03	1.0E-03	None Specified	0
BH3/3	4-methylphenol	<0.001	4	0		1.0E-03	1.0E-03	None Specified	0
BH3/5	4-methylphenol	<0.001	4	0		1.0E-03	1.0E-03	None Specified	0
BH3/6	4-methylphenol	<0.001	4	0		1.0E-03	1.0E-03	None Specified	0
BH3/8	4-methylphenol	<0.001	4	0		1.0E-03	1.0E-03	None Specified	0
BH3/9	4-methylphenol	<0.001	4	0		1.0E-03	1.0E-03	None Specified	0
NACW203	Cadmium	<0.0001	4	0		1.0E-04	1.0E-04	1.0E-04	0
NACW205	Cadmium	<0.0001	4	0		1.0E-04	1.0E-04	1.0E-04	0
NACW208	Cadmium	<0.0001	4	0		1.0E-04	1.0E-04	1.0E-04	0
BH5/02	Cadmium	<0.0001	4	0		1.0E-04	1.0E-04	1.0E-04	0
NACW212	Cadmium	<0.0001	4	0		1.0E-04	1.0E-04	1.0E-04	0
NACW227	Cadmium	<0.0001	0	0		1.0E-04	1.0E-04	1.0E-04	0
NACW228	Cadmium	<0.0001	4	0		1.0E-04	1.0E-04	1.0E-04	0
BH3/4	Cadmium	<0.0001	4	0		1.0E-04	1.0E-04	1.0E-04	0
UD1	Cadmium	<0.0001	4	0		1.0E-04	1.0E-04	1.0E-04	0
UD2	Cadmium	<0.0001	0	0		1.0E-04	1.0E-04	1.0E-04	0
UD3	Cadmium	<0.0001	4	0		1.0E-04	1.0E-04	1.0E-04	0

UD4	Cadmium	<0.0001	4	0		1.0E-04	1.0E-04	1.0E-04	0
UD5	Cadmium	<0.0001	4	0		1.0E-04	1.0E-04	1.0E-04	0
NACW219	Cadmium	<0.0001	4	0		1.0E-04	1.0E-04	None Specified	0
NACW229	Cadmium	<0.0001	4	0		1.0E-04	1.0E-04	None Specified	0
BH3/2	Cadmium	<0.0001	4	0		1.0E-04	1.0E-04	None Specified	0
BH3/3	Cadmium	<0.0001	4	0		1.0E-04	1.0E-04	None Specified	0
BH3/5	Cadmium	<0.0001	4	1	1.2E-04	1.2E-04	1.2E-04	None Specified	0
BH3/6	Cadmium	<0.0001	4	0		1.0E-04	1.0E-04	None Specified	0
BH3/8	Cadmium	<0.0001	4	0		1.0E-04	1.0E-04	None Specified	0
BH3/9	Cadmium	<0.0001	4	0		1.0E-04	1.0E-04	None Specified	0
NACW203	Dichloromethane	<0.003	4	0		3.0E-03	3.0E-03	2.0E-02	0
NACW205	Dichloromethane	<0.003	4	0		3.0E-03	3.0E-03	2.0E-02	0
NACW208	Dichloromethane	<0.003	4	0		3.0E-03	3.0E-03	2.0E-02	0
BH5/02	Dichloromethane	<0.003	4	0		3.0E-03	3.0E-03	2.0E-02	0
NACW212	Dichloromethane	<0.003	4	0		3.0E-03	3.0E-03	2.0E-02	0
NACW227	Dichloromethane	<0.003	0	0		3.0E-03	3.0E-03	2.0E-02	0
NACW228	Dichloromethane	<0.003	4	0		3.0E-03	3.0E-03	2.0E-02	0
BH3/4	Dichloromethane	<0.003	4	0		3.0E-03	3.0E-03	2.0E-02	0
UD1	Dichloromethane	<0.003	4	0		3.0E-03	3.0E-03	2.0E-02	0
UD2	Dichloromethane	<0.003	0	0		3.0E-03	3.0E-03	2.0E-02	0
UD3	Dichloromethane	<0.003	4	0		3.0E-03	3.0E-03	2.0E-02	0
UD4	Dichloromethane	<0.003	4	0		3.0E-03	3.0E-03	2.0E-02	0
UD5	Dichloromethane	<0.003	4	0		3.0E-03	3.0E-03	2.0E-02	0
NACW219	Dichloromethane	<0.003	4	0		3.0E-03	3.0E-03	None Specified	0
NACW229	Dichloromethane	<0.003	4	0		3.0E-03	3.0E-03	None Specified	0
BH3/2	Dichloromethane	<0.003	4	0		3.0E-03	3.0E-03	None Specified	0
BH3/3	Dichloromethane	<0.003	4	0		3.0E-03	3.0E-03	None Specified	0
BH3/5	Dichloromethane	<0.003	4	0		3.0E-03	3.0E-03	None Specified	0
BH3/6	Dichloromethane	<0.003	4	0		3.0E-03	3.0E-03	None Specified	0
BH3/8	Dichloromethane	<0.003	4	0		3.0E-03	3.0E-03	None Specified	0
BH3/9	Dichloromethane	<0.003	4	0		3.0E-03	3.0E-03	None Specified	0
NACW203	Diethylphthalate	<0.001	4	0		1.0E-03	1.0E-03	3.0E-02	0
NACW205	Diethylphthalate	<0.001	4	0		1.0E-03	1.0E-03	3.0E-02	0

NACW208	Diethylphthalate	<0.001	4	0		1.0E-03	1.0E-03	3.0E-02	0
BH5/02	Diethylphthalate	<0.001	4	0		1.0E-03	1.0E-03	3.0E-02	0
NACW212	Diethylphthalate	<0.001	4	0		1.0E-03	1.0E-03	3.0E-02	0
NACW227	Diethylphthalate	<0.001	0	0		1.0E-03	1.0E-03	3.0E-02	0
NACW228	Diethylphthalate	<0.001	4	0		1.0E-03	1.0E-03	3.0E-02	0
BH3/4	Diethylphthalate	<0.001	4	0		1.0E-03	1.0E-03	3.0E-02	0
UD1	Diethylphthalate	<0.001	4	0		1.0E-03	1.0E-03	3.0E-02	0
UD2	Diethylphthalate	<0.001	0	0		1.0E-03	1.0E-03	3.0E-02	0
UD3	Diethylphthalate	<0.001	4	0		1.0E-03	1.0E-03	3.0E-02	0
UD4	Diethylphthalate	<0.001	4	0		1.0E-03	1.0E-03	3.0E-02	0
UD5	Diethylphthalate	<0.001	4	0		1.0E-03	1.0E-03	3.0E-02	0
NACW219	Diethylphthalate	<0.001	4	0		1.0E-03	1.0E-03	None Specified	0
NACW229	Diethylphthalate	<0.001	4	0		1.0E-03	1.0E-03	None Specified	0
BH3/2	Diethylphthalate	<0.001	4	0		1.0E-03	1.0E-03	None Specified	0
BH3/3	Diethylphthalate	<0.001	4	0		1.0E-03	1.0E-03	None Specified	0
BH3/5	Diethylphthalate	<0.001	4	0		1.0E-03	1.0E-03	None Specified	0
BH3/6	Diethylphthalate	<0.001	4	0		1.0E-03	1.0E-03	None Specified	0
BH3/8	Diethylphthalate	<0.001	4	0		1.0E-03	1.0E-03	None Specified	0
BH3/9	Diethylphthalate	<0.001	4	0		1.0E-03	1.0E-03	None Specified	0
NACW203	Mecoprop	<0.00004	4	0		4.0E-05	4.0E-05	5.5E-05	0
NACW205	Mecoprop	<0.00004	4	0		4.0E-05	4.0E-05	5.5E-05	0
NACW208	Mecoprop	<0.00004	4	0		4.0E-05	4.0E-05	5.5E-05	0
BH5/02	Mecoprop	<0.00004	4	0		4.0E-05	4.0E-05	5.5E-05	0
NACW212	Mecoprop	<0.00004	4	0		4.0E-05	4.0E-05	5.5E-05	0
NACW227	Mecoprop	<0.00004	0	0		4.0E-05	4.0E-05	5.5E-05	0
NACW228	Mecoprop	<0.00004	4	2	1.0E-04	4.1E-05	1.6E-04	5.5E-05	1
BH3/4	Mecoprop	<0.00004	4	0		4.0E-05	4.0E-05	5.5E-05	0
UD1	Mecoprop	<0.00004	4	0		4.0E-05	4.0E-05	5.5E-05	0
UD2	Mecoprop	<0.00004	0	0		4.0E-05	4.0E-05	5.5E-05	0
UD3	Mecoprop	<0.00004	4	0		4.0E-05	4.0E-05	5.5E-05	0
UD4	Mecoprop	<0.00004	4	1	4.4E-05	4.4E-05	4.4E-05	5.5E-05	0
UD5	Mecoprop	<0.00004	4	1	5.5E-05	5.5E-05	5.5E-05	5.5E-05	0
NACW219	Mecoprop	<0.00004	4	0		4.0E-05	4.0E-05	None Specified	0

NACW229	Mecoprop	<0.00004	4	2	2.0E-04	1.8E-04	2.3E-04	None Specified	0
BH3/2	Mecoprop	<0.00004	4	0		4.0E-05	4.0E-05	None Specified	0
BH3/3	Mecoprop	<0.00004	4	0		4.0E-05	4.0E-05	None Specified	0
BH3/5	Mecoprop	<0.00004	4	0		4.0E-05	4.0E-05	None Specified	0
BH3/6	Mecoprop	<0.00004	4	0		4.0E-05	4.0E-05	None Specified	0
BH3/8	Mecoprop	<0.00004	4	0		4.0E-05	4.0E-05	None Specified	0
BH3/9	Mecoprop	<0.00004	4	1	7.2E-05	7.2E-05	7.2E-05	None Specified	0
NACW203	Nickel	<0.00015	4	4	1.4E-03	1.2E-03	1.6E-03	2.0E-02	0
NACW205	Nickel	<0.00015	4	4	1.2E-03	1.1E-03	1.4E-03	2.0E-02	0
NACW208	Nickel	<0.00015	4	4	1.4E-03	1.1E-03	2.0E-03	2.0E-02	0
BH5/02	Nickel	<0.00015	4	4	1.4E-03	1.1E-03	2.0E-03	2.0E-02	0
NACW212	Nickel	<0.00015	4	4	1.0E-03	8.2E-04	1.3E-03	3.7E-02	0
NACW227	Nickel	<0.00015	0	0		1.5E-04	1.5E-04	2.0E-02	0
NACW228	Nickel	<0.00015	4	4	3.2E-03	9.2E-04	5.1E-03	2.0E-02	0
BH3/4	Nickel	<0.00015	4	4	1.5E-03	9.7E-04	2.1E-03	2.0E-02	0
UD1	Nickel	<0.00015	4	4	1.9E-03	8.2E-04	4.2E-03	2.0E-02	0
UD2	Nickel	<0.00015	0	0		1.5E-04	1.5E-04	2.0E-02	0
UD3	Nickel	<0.00015	4	4	1.1E-03	8.9E-04	1.3E-03	2.0E-02	0
UD4	Nickel	<0.00015	4	4	2.2E-03	1.2E-03	3.4E-03	2.0E-02	0
UD5	Nickel	<0.00015	4	4	1.5E-03	6.7E-04	3.4E-03	2.0E-02	0
NACW219	Nickel	<0.00015	4	4	2.0E-03	1.5E-03	2.6E-03	None Specified	0
NACW229	Nickel	<0.00015	4	4	2.6E-03	6.8E-04	5.6E-03	None Specified	0
BH3/2	Nickel	<0.00015	4	4	9.9E-04	8.5E-04	1.1E-03	None Specified	0
BH3/3	Nickel	<0.00015	4	4	7.7E-04	7.0E-04	8.5E-04	None Specified	0
BH3/5	Nickel	<0.00015	4	4	2.3E-03	7.5E-04	3.5E-03	None Specified	0
BH3/6	Nickel	<0.00015	4	4	4.0E-03	3.0E-03	4.8E-03	None Specified	0
BH3/8	Nickel	<0.00015	4	4	2.0E-03	8.4E-04	3.0E-03	None Specified	0
BH3/9	Nickel	<0.00015	4	4	1.4E-03	5.4E-04	3.5E-03	None Specified	0

Table 4.6: Summary of Monthly Perimeter Gas Monitoring for Methane, 2014

Borehole	n	Min (%)	Max (%)	No. > 0%	Compliance Limit	No. > CL
NACW201	12	0.0	0.2	11	1% Above Background	0
NACW202	12	0.0	0.1	11	1% Above Background	0
NACW203	12	0.0	0.1	5	1% Above Background	0
NACW204	12	0.0	0.1	8	1% Above Background	0
NACW205	12	0.0	0.2	7	1% Above Background	0
NACW208	12	0.0	0.0	0	1% Above Background	0
BH5/02	12	0.0	0.0	0	1% Above Background	0
NACW212	12	0.0	0.2	11	1% Above Background	0
NACW213	12	0.0	0.1	10	1% Above Background	0
NACW215	12	0.0	0.1	7	1% Above Background	0
NACW216	12	0.0	0.1	4	1% Above Background	0
NACW219	12	0.0	0.1	8	1% Above Background	0
NACW227	12	0.1	0.2	12	1% Above Background	0
NACW228	12	0.1	0.2	12	1% Above Background	0
NACW229	12	0.0	0.1	11	1% Above Background	0
NACW230	12	0.0	0.2	11	1% Above Background	0
BH3/1	12	0.1	0.1	12	1% Above Background	0
BH3/2	12	0.0	0.1	10	1% Above Background	0
BH3/3	12	0.0	0.1	3	1% Above Background	0
BH3/4	12	0.0	0.1	11	1% Above Background	0
BH3/5	12	0.1	0.1	12	1% Above Background	0
BH3/6	12	0.0	0.1	10	1% Above Background	0
BH3/8	12	0.0	0.2	11	1% Above Background	0
BH3/9	12	0.0	0.2	11	1% Above Background	0
BH3/10	12	0.0	0.1	11	1% Above Background	0
BH3/11	12	0.0	0.1	10	1% Above Background	0

Table 4.7: Summary of Monthly Perimeter Gas Monitoring for Carbon Dioxide, 2014

Borehole	n	Min (%)	Max (%)	No. > 0%	Compliance Limit	No. > CL
NACW201	12	0.1	0.4	12	3.5%	0
NACW202	12	0.1	0.6	12	3.5%	0
NACW203	12	0.0	0.4	10	3.5%	0
NACW204	12	0.0	0.4	11	3.5%	0
NACW205	12	0.1	0.4	12	3.5%	0
NACW208	12	0.0	0.0	0	3.5%	0
BH5/02	12	0.0	0.0	0	3.5%	0
NACW212	12	0.0	1.2	11	3.5%	0
NACW213	12	0.1	0.6	12	3.5%	0
NACW215	12	0.0	0.5	8	3.5%	0
NACW216	12	0.0	0.3	8	3.5%	0
NACW219	12	0.0	0.3	7	3.5%	0
NACW227	12	0.1	0.9	12	3.5%	0
NACW228	12	0.0	0.5	11	3.5%	0
NACW229	12	0.1	0.5	12	3.5%	0
NACW230	12	0.1	0.8	12	3.5%	0
BH3/1	12	0.0	0.6	10	3.5%	0
BH3/2	12	0.1	0.8	12	3.5%	0
BH3/3	12	0.0	0.0	0	3.5%	0
BH3/4	12	0.1	1.2	12	3.5%	0
BH3/5	12	0.4	1.2	12	3.5%	0
BH3/6	12	0.0	0.8	11	3.5%	0
BH3/8	12	0.0	0.9	11	3.5%	0
BH3/9	12	0.0	0.8	11	3.5%	0
BH3/10	12	0.0	0.4	11	3.5%	0
BH3/11	12	0.0	0.7	10	3.5%	0

Table 4.8: Summary of Monthly Perimeter Gas Monitoring for Oxygen, 2014

Borehole	n	Min (%)	Max (%)	No. > 0%	Compliance Limit	No. > CL
NACW201	12	20.2	21.3	12	None Set	-
NACW202	12	20.6	21.5	12	None Set	-
NACW203	12	20.0	21.8	12	None Set	-
NACW204	12	20.8	21.4	12	None Set	-
NACW205	12	20.2	21.2	12	None Set	-
NACW208	12	0.0	0.0	0	None Set	-
BH5/02	12	0.0	0.0	0	None Set	-
NACW212	12	18.4	22.2	12	None Set	-
NACW213	12	20.1	22.2	12	None Set	-
NACW215	12	0.0	22.0	8	None Set	-
NACW216	12	0.0	22.1	8	None Set	-
NACW219	12	0.0	21.9	11	None Set	-
NACW227	12	19.3	20.7	12	None Set	-
NACW228	12	19.8	21.4	12	None Set	-
NACW229	12	19.8	21.5	12	None Set	-
NACW230	12	19.7	21.0	12	None Set	-
BH3/1	12	20.6	22.0	12	None Set	-
BH3/2	12	19.3	21.9	12	None Set	-
BH3/3	12	20.5	22.3	12	None Set	-
BH3/4	12	18.4	21.3	12	None Set	-
BH3/5	12	18.1	20.2	12	None Set	-
BH3/6	12	19.9	21.7	12	None Set	-
BH3/8	12	18.5	21.6	12	None Set	-
BH3/9	12	19.1	21.8	12	None Set	-
BH3/10	12	19.7	22.1	12	None Set	-
BH3/11	12	19.8	22.0	12	None Set	-

Table 4.9: Details of Schedule 6 Notices Issued for 2014 Monitoring

Date	Monitoring Location	Parameter	Recorded Concentration (mg/l)	Statutory Limit (mg/l)	Reason for Breach	Action Taken
13/03/2014	Cell 6 Sump, Cell 7 Sump	4-methylphenol	Cell 6 Sump - 0.573 mg/l; Cell 7 Sump – 1.27mg/l Retested – Cell 6 Sump – 2.3 mg/l; Cell 7 Sump – 0.595 mg/l	0.126	Unknown - Review results for leachate under-drainage and surface waters	1. No detection of 4-methylphenol in under-drainage or surface-waters. 2. Leachate sumps are pumped out using automatic systems into lagoons, whereupon they are removed for treatment. 3. The recorded concentrations of 4-methylphenol at Cell 6 and 7 Sumps in February 2014 were similar to those observed at these locations in 2013. 4. A case for upward revision of the trigger limit to 5.1mg/l was presented in the 2013 HRA update. If this were to be adopted, no breach of a compliance limit would have occurred at these locations.
28/01/2015	SW205	Ammoniacal nitrogen	SW205	1.0 mg/l	Unknown – no exceedence of ammoniacal nitrogen in under-drainage	1. Review results for leachate, underdrainage and surface waters. 2. Background concentrations of ammoniacal nitrogen were greater than the Compliance Level.
28/01/2015	SW201 – 203 inclusive and SW205 – 207 inclusive	Mecoprop	No analysis because of laboratory error	0.000055mg/l	Laboratory error due to equipment breakdown.	Review results in Q1 monitoring round 2015
28/01/2015	SW204	Mecoprop	7.8×10^{-5}mg/l	5.5×10^{-5}mg/l	Unknown	Monitor mecoprop concentrations in surface water and under-drainage locations in Q1 monitoring round 2015.

Table 4.10: Details of Schedule 6 Notices not Issued for 2014 Monitoring.

Date	Monitoring Location	Parameter	Recorded Concentration (mg/l)	Statutory Limit (mg/l)	Reason for Breach	Action Taken
09/04/2014	Cell 1&2 Sump	Mecoprop	0.16	0.071	Unknown	Check water quality results in under-drainage locations (as most sensitive to potential leachate escape). No mecoprop detected. Check leachate heads are below compliance level / whether automated pumps operational. Check why automated flag at analytical laboratory did not operate.
09/04/2014	Cell 6 Sump	4-methylphenol	0.14	0.126	Unknown	Check water quality results in under-drainage locations (as most sensitive to potential leachate escape). No 4-methylphenol detected. Check leachate heads are below compliance level / whether automated pumps operational. Check why automated flag at analytical laboratory did not operate
17/10/2014	Cell 5 Sump	4-methylphenol	0.17	0.126	Unknown	Check water quality results in under-drainage locations (as most sensitive to potential leachate escape). No 4-methylphenol detected. Check leachate heads are below compliance level / whether automated pumps operational. Check why automated flag at analytical laboratory did not operate
17/10/2014	NACW228	Mecoprop	1.59×10^{-4}	5.5×10^{-5}	Unknown	Check analytical results with laboratory, whether exceedance isolated to this location and whether repeated in next Quarter sampling.

APPENDICES

APPENDIX A

LABORATORY CERTIFICATES (MONTHLY AND QUARTERLY MONITORING SUITES)

ALcontrol Laboratories

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
Fax: (01244) 528701
email: mkt@alcontrol.com
Website: www.alcontrol.com

CWM Environmental Ltd
Nantyclaws Landfill Site
Llanddarg Road
Carmarthen
Carmarthenshire
SA32 8BG

Attention: Mike Lewis

CERTIFICATE OF ANALYSIS

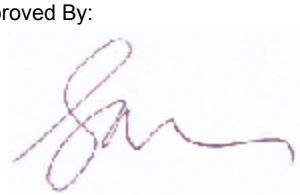
Date:	31 January 2014
Customer:	H_CWMENV_NAN
Sample Delivery Group (SDG):	140123-63
Your Reference:	
Location:	Phase 2-3
Report No:	258370

We received 26 samples on Thursday January 23, 2014 and 26 of these samples were scheduled for analysis which was completed on Friday January 31, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:



Sonia McWhan

Operations Manager

Alcontrol Laboratories is a trading division of ALcontrol UK Limited
Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No.

CERTIFICATE OF ANALYSIS

SDG:	140123-63	**Location:**	Phase 2-3	**Order Number:**	6475 l/f
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	258370
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
8733426	BH 3/4			21/01/2014
8733415	BH 208			21/01/2014
8733416	BH 5/02			21/01/2014
8733404	LEACHATE HOLDING LAGOON			22/01/2014
8733413	NACW 203			21/01/2014
8733414	NACW 205			21/01/2014
8733417	NACW 212			21/01/2014
8733418	NACW 228			21/01/2014
8733408	5 SUMP			22/01/2014
8733410	6 SUMP			22/01/2014
8733412	7 SUMP			22/01/2014
8733406	1/2 SUMP			22/01/2014
8733407	3/4 SUMP			22/01/2014
8733427	SURFACE WATER LAGOON 1			22/01/2014
8733428	SURFACE WATER LAGOON 2			22/01/2014
8733430	SW 201			22/01/2014
8733432	SW 202			22/01/2014
8733434	SW 203			22/01/2014
8733435	SW 204			22/01/2014
8733437	SW 205			22/01/2014
8733438	SW 206			22/01/2014
8733439	SW 207			22/01/2014
8733420	UD1			21/01/2014
8733421	UD3			21/01/2014
8733423	UD4			21/01/2014
8733424	UD5			21/01/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	140123-63	**Location:**	Phase 2-3	**Order Number:**	6475 I/f
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	258370
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
8733426	BH 3/4			250ml BOD (ALE21)
8733415	BH 208			H2SO4 (ALE244)
8733416	BH 5/02			250ml BOD (ALE21)
8733404	LEACHATE HOLDING LAGOON			H2SO4 (ALE244)
8733413	NACW 203			250ml BOD (ALE21)
8733414	NACW 205			H2SO4 (ALE244)
8733417	NACW 212			250ml BOD (ALE21)
8733418	NACW 228			H2SO4 (ALE244)
8733408	5 SUMP			250ml BOD (ALE21)
8733410	6 SUMP			H2SO4 (ALE244)
8733412	7 SUMP			250ml BOD (ALE21)
8733406	1/2 SUMP			H2SO4 (ALE244)
8733407	3/4 SUMP			250ml BOD (ALE21)
8733427	SURFACE WATER			H2SO4 (ALE244)
8733428	SURFACE WATER			250ml BOD (ALE21)
8733430	SW 201			250ml BOD (ALE21)
8733432	SW 202			H2SO4 (ALE244)
8733434	SW 203			250ml BOD (ALE21)
8733435	SW 204			H2SO4 (ALE244)
8733437	SW 205			250ml BOD (ALE21)
8733438	SW 206			H2SO4 (ALE244)

| | | | | |

CERTIFICATE OF ANALYSIS

SDG:	140123-63	**Location:**	Phase 2-3	**Order Number:**	6475 l/f
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	258370
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			8733439	SW 207			250ml BOD (ALE21)
			8733420	UD1			H2SO4 (ALE244)
			8733421	UD3			250ml BOD (ALE21)
			8733423	UD4			H2SO4 (ALE244)
			8733424	UD5			250ml BOD (ALE21)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 24		X	X	X	H2SO4 (ALE244)
Anions by Kone (w)	All	NDPs: 0 Tests: 24	X	X	X	X	250ml BOD (ALE21)
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 24	X	X	X	X	250ml BOD (ALE21)
pH Value	All	NDPs: 0 Tests: 7	X				
Suspended Solids	All	NDPs: 0 Tests: 9	X				

CERTIFICATE OF ANALYSIS

SDG:	140123-63	**Location:**	Phase 2-3	**Order Number:**	6475 l/f
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	258370
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH 3/4	BH 208	BH 5/02	LEACHATE HOLDING LAGOON	NACW 203	NACW 205
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	21/01/2014	21/01/2014	21/01/2014	22/01/2014	21/01/2014	21/01/2014
			Sample Time	.	.	.	.	.	.
			Date Received	23/01/2014	23/01/2014	23/01/2014	23/01/2014	23/01/2014	23/01/2014
			SDG Ref	140123-63	140123-63	140123-63	140123-63	140123-63	140123-63
			Lab Sample No.(s)	8733426	8733415	8733416	8733404	8733413	8733414
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		0.307 #	<0.2 #	<0.2 #	690 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.182 #	0.426 #	0.43 #	9.74 #	0.47 #	0.439 #
Chloride	<2 mg/l	TM184		16.3 #	14.9 #	18.1 #	1320 #	20.5 #	18 #

CERTIFICATE OF ANALYSIS

SDG:	140123-63	**Location:**	Phase 2-3	**Order Number:**	6475 l/f
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	258370
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Depth (m)	Sample Type	Date Sampled	Sample Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			NACW 212	.	Water(GW/SW)	21/01/2014	.	23/01/2014	140123-63	8733417	
			NACW 228	.	Water(GW/SW)	21/01/2014	.	23/01/2014	140123-63	8733418	
			5 SUMP	.	Water(GW/SW)	22/01/2014	.	23/01/2014	140123-63	8733408	
			6 SUMP	.	Water(GW/SW)	22/01/2014	.	23/01/2014	140123-63	8733410	
			7 SUMP	.	Water(GW/SW)	22/01/2014	.	23/01/2014	140123-63	8733412	
			1/2 SUMP	.	Water(GW/SW)	22/01/2014	.	23/01/2014	140123-63	8733406	
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	<0.2 #								
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120	0.252 #								
Chloride	<2 mg/l	TM184	21.3 #								
			<0.2 #								
			1230 #								
			707 #								
			622 #								
			672 #								
			0.284 #								
			19.3 #								
			9.93 #								
			8.64 #								
			9.63 #								
			41.4 #								
			4280 #								
			1280 #								
			979 #								
			1330 #								

CERTIFICATE OF ANALYSIS

SDG:	140123-63	**Location:**	Phase 2-3	**Order Number:**	6475 I/f
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	258370
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Depth (m)	Sample Type	Date Sampled	Sample Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
Suspended solids, Total	<2 mg/l	TM022	3/4 SUMP	.	Water(GW/SW)	22/01/2014	.	23/01/2014	140123-63	8733407	
			SURFACE WATER L AGOON 1	.	Water(GW/SW)	22/01/2014	.	23/01/2014	140123-63	8733427	
			SURFACE WATER L AGOON 2	.	Water(GW/SW)	22/01/2014	.	23/01/2014	140123-63	8733428	
			SW 201	.	Water(GW/SW)	22/01/2014	.	23/01/2014	140123-63	8733430	
			SW 202	.	Water(GW/SW)	22/01/2014	.	23/01/2014	140123-63	8733432	
			SW 203	.	Water(GW/SW)	22/01/2014	.	23/01/2014	140123-63	8733434	
Suspended solids, Total	<2 mg/l	TM022									
			28 #								
			52 #								
			16.5 #								
			33 #								
			37 #								
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	688 #								
			0.833 #								
			1.13 #								
			0.653 #								
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120	9.67 #								
			0.226 #								
			0.271 #								
			0.181 #								
Chloride	<2 mg/l	TM184	1360 #								
			20.1 #								
			21.6 #								
			14.4 #								
pH	<1 pH Units	TM256									
			7.79 #								
			7.86 #								
			7.81 #								

CERTIFICATE OF ANALYSIS

SDG:	140123-63	**Location:**	Phase 2-3	**Order Number:**	6475 l/f
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	258370
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW 204	SW 205	SW 206	SW 207	UD1	UD3
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	22/01/2014	22/01/2014	22/01/2014	22/01/2014	21/01/2014	21/01/2014
			Sample Time	.	.	.	.	.	.
			Date Received	23/01/2014	23/01/2014	23/01/2014	23/01/2014	23/01/2014	23/01/2014
			SDG Ref	140123-63	140123-63	140123-63	140123-63	140123-63	140123-63
			Lab Sample No.(s)	8733435	8733437	8733438	8733439	8733420	8733421
			AGS Reference						
Suspended solids, Total	<2 mg/l	TM022		5.5 #	37.5 #	25 #	24.5 #		
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	0.831 #	0.516 #	0.29 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.186 #	0.453 #	0.153 #	0.319 #	0.475 #	0.355 #
Chloride	<2 mg/l	TM184		15.3 #	38.4 #	14 #	26.1 #	27.8 #	15.7 #
pH	<1 pH Units	TM256		7.85 #	7.87 #	7.56 #	7.95 #		

CERTIFICATE OF ANALYSIS

SDG:	140123-63	**Location:**	Phase 2-3	**Order Number:**	6475 l/f
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	258370
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	UD4	UD5			
			Depth (m)	.	.			
			Sample Type	Water(GW/SW)	Water(GW/SW)			
			Date Sampled	21/01/2014	21/01/2014			
			Sample Time	.	.			
			Date Received	23/01/2014	23/01/2014			
			SDG Ref	140123-63	140123-63			
			Lab Sample No.(s)	8733423	8733424			
			AGS Reference					
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		4.6 #	0.291 #			
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.576 #	0.191 #			
Chloride	<2 mg/l	TM184		41.5 #	11.9 #			

CERTIFICATE OF ANALYSIS

SDG:	140123-63	**Location:**	Phase 2-3	**Order Number:**	6475 l/f
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	258370
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM022	Method 2540D, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part120 1981;BS EN 872	Determination of total suspended solids in waters		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM120	Method 2510B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part 9:1970	Determination of Electrical Conductivity using a Conductivity Meter		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	140123-63	**Location:**	Phase 2-3	**Order Number:**	6475 l/f
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	258370
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	8733408	8733410	8733415	8733426	8733416	8733404	8733413	8733414	8733417	8733418
Customer Sample Ref.	5 SUMP	6 SUMP	BH 208	BH 3/4	BH 5/02	LEACHATE HOLDING LAGOON	NACW 203	NACW 205	NACW 212	NACW 228
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	27-Jan-2014	27-Jan-2014	28-Jan-2014	28-Jan-2014	28-Jan-2014	27-Jan-2014	28-Jan-2014	28-Jan-2014	28-Jan-2014	28-Jan-2014
Anions by Kone (w)	30-Jan-2014	31-Jan-2014	31-Jan-2014	31-Jan-2014	31-Jan-2014	30-Jan-2014	30-Jan-2014	31-Jan-2014	30-Jan-2014	31-Jan-2014
Conductivity (at 20 deg.C)	27-Jan-2014	27-Jan-2014	27-Jan-2014	27-Jan-2014	27-Jan-2014	27-Jan-2014	27-Jan-2014	27-Jan-2014	27-Jan-2014	27-Jan-2014

Lab Sample No(s)	8733412	8733406	8733407	8733427	8733428	8733430	8733432	8733434	8733435	8733437
Customer Sample Ref.	7 SUMP	1/2 SUMP	3/4 SUMP	SURFACE WATER LAGOON 1	SURFACE WATER LAGOON 2	SW 201	SW 202	SW 203	SW 204	SW 205
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	27-Jan-2014	27-Jan-2014	27-Jan-2014			28-Jan-2014	28-Jan-2014	28-Jan-2014	27-Jan-2014	28-Jan-2014
Anions by Kone (w)	30-Jan-2014	31-Jan-2014	31-Jan-2014			31-Jan-2014	30-Jan-2014	31-Jan-2014	31-Jan-2014	30-Jan-2014
Conductivity (at 20 deg.C)	27-Jan-2014	27-Jan-2014	27-Jan-2014			27-Jan-2014	27-Jan-2014	27-Jan-2014	27-Jan-2014	27-Jan-2014
pH Value						25-Jan-2014	25-Jan-2014	25-Jan-2014	25-Jan-2014	25-Jan-2014
Suspended Solids				27-Jan-2014	24-Jan-2014	27-Jan-2014	27-Jan-2014	24-Jan-2014	27-Jan-2014	27-Jan-2014

Lab Sample No(s)	8733438	8733439	8733420	8733421	8733423	8733424
Customer Sample Ref.	SW 206	SW 207	UD1	UD3	UD4	UD5
AGS Ref.						
Depth						
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	27-Jan-2014	28-Jan-2014	27-Jan-2014	28-Jan-2014	28-Jan-2014	28-Jan-2014
Anions by Kone (w)	31-Jan-2014	31-Jan-2014	30-Jan-2014	31-Jan-2014	31-Jan-2014	31-Jan-2014
Conductivity (at 20 deg.C)	27-Jan-2014	27-Jan-2014	27-Jan-2014	27-Jan-2014	27-Jan-2014	27-Jan-2014
pH Value	25-Jan-2014	25-Jan-2014				
Suspended Solids	24-Jan-2014	24-Jan-2014				

SDG:	140123-63	**Location:**	Phase 2-3	**Order Number:**	6475 l/f
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	258370
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix
General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before presevation was performed
§	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -
Trace -Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

ALcontrol Laboratories

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Website: www.alcontrol.com

CWM Environmental Ltd
Nantyclaws Landfill Site
Llanddarg Road
Carmarthen
Carmarthenshire
SA32 8BG

Attention: Mike Lewis

CERTIFICATE OF ANALYSIS

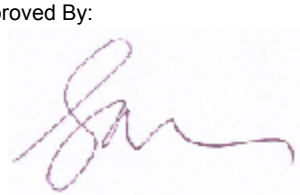
Date:	27 February 2015
Customer:	H_CWMENV_NAN
Sample Delivery Group (SDG):	140211-13
Your Reference:	
Location:	Phase 2-3
Report No:	303721

We received 7 samples on Tuesday February 11, 2014 and 7 of these samples were scheduled for analysis which was completed on Wednesday February 19, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:



Sonia McWhan

Operations Manager

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Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No.

CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
8822805	SW 201			10/02/2014
8822807	SW 202			10/02/2014
8822808	SW 203			10/02/2014
8822809	SW 204			10/02/2014
8822810	SW 205			10/02/2014
8822811	SW 206			10/02/2014
8822812	SW 207			10/02/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			8822805	SW 201			1l Glass bottle (ALE
			8822805	SW 201			1lplastic (ALE221)
			8822805	SW 201			H2SO4 (ALE244)
			8822805	SW 201			NaOH (ALE245)
			8822805	SW 201			Vial (ALE297)
			8822807	SW 202			1l Glass bottle (ALE
			8822807	SW 202			1lplastic (ALE221)
			8822807	SW 202			H2SO4 (ALE244)
			8822807	SW 202			NaOH (ALE245)
			8822807	SW 202			Vial (ALE297)
			8822808	SW 203			1l Glass bottle (ALE
			8822808	SW 203			1lplastic (ALE221)
			8822808	SW 203			H2SO4 (ALE244)
			8822808	SW 203			NaOH (ALE245)
			8822808	SW 203			Vial (ALE297)
			8822809	SW 204			1l Glass bottle (ALE
			8822809	SW 204			1lplastic (ALE221)
			8822809	SW 204			H2SO4 (ALE244)
			8822809	SW 204			NaOH (ALE245)
			8822809	SW 204			Vial (ALE297)
			8822810	SW 205			1l Glass bottle (ALE
			8822810	SW 205			1lplastic (ALE221)
			8822810	SW 205			H2SO4 (ALE244)
			8822810	SW 205			NaOH (ALE245)
			8822810	SW 205			Vial (ALE297)
			8822811	SW 206			1l Glass bottle (ALE
			8822811	SW 206			1lplastic (ALE221)
			8822811	SW 206			H2SO4 (ALE244)
			8822811	SW 206			NaOH (ALE245)
			8822811	SW 206			Vial (ALE297)
			8822812	SW 207			1l Glass bottle (ALE
			8822812	SW 207			1lplastic (ALE221)
			8822812	SW 207			H2SO4 (ALE244)
			8822812	SW 207			NaOH (ALE245)
			8822812	SW 207			Vial (ALE297)
Acid Herbicides by LCQQQ (aq)	All	NDPs: 0 Tests: 7	X				X				X				X				X				X				X				X			
Alkalinity as CaCO3	All	NDPs: 0 Tests: 7		X				X				X				X				X				X				X				X		
Alkalinity Filtered as CaCO3	All	NDPs: 0 Tests: 7		X				X				X				X				X				X				X				X		
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 7			X				X				X				X				X				X				X				X	
Anions by Kone (w)	All	NDPs: 0 Tests: 7		X				X				X				X				X				X				X				X		
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 7		X				X				X				X				X				X				X				X		
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 7		X				X				X				X				X				X				X				X		
EPH (DRO) (C10-C40) Aqueous (W)	All	NDPs: 0 Tests: 7	X				X				X				X				X				X				X				X			
GRO by GC-FID (W)	All	NDPs: 0 Tests: 7				X				X				X				X				X				X				X				X
Ionic Balance	All	NDPs: 0 Tests: 7		X				X				X				X				X				X				X				X		
Metals by iCap-OES Dissolved (W)	All	NDPs: 0 Tests: 7		X				X				X				X				X				X				X				X		
Nitrite by Kone (w)	All	NDPs: 0 Tests: 7			X				X				X				X				X				X				X				X	
pH Value	All	NDPs: 0 Tests: 7		X				X				X				X				X				X				X				X		
Suspended Solids	All	NDPs: 0 Tests: 6		X				X				X				X				X				X				X				X		
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 7	X				X				X				X				X				X				X				X			

CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			8822805	SW 201			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
			8822807	SW 202			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
			8822808	SW 203			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
			8822809	SW 204			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
			8822810	SW 205			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
			8822811	SW 206			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
			8822812	SW 207			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
Total EPH (aq)	All	NDPs: 0 Tests: 7	X	X	X	X	X	X	X
Total Organic and Inorganic Carbon	All	NDPs: 0 Tests: 7	X	X	X	X	X	X	X
VOC MS (W)	All	NDPs: 0 Tests: 7	X	X	X	X	X	X	X

CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Depth (m)	Sample Type	Date Sampled	Sampled Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			SW 201	.	Water(GW/SW)	10/02/2014	.	11/02/2014	140211-13	8822805	
			SW 202	.	Water(GW/SW)	10/02/2014	.	11/02/2014	140211-13	8822807	
			SW 203	.	Water(GW/SW)	10/02/2014	.	11/02/2014	140211-13	8822808	
			SW 204	.	Water(GW/SW)	10/02/2014	.	11/02/2014	140211-13	8822809	
			SW 205	.	Water(GW/SW)	10/02/2014	.	11/02/2014	140211-13	8822810	
			SW 206	.	Water(GW/SW)	10/02/2014	.	11/02/2014	140211-13	8822811	
Ionic balance	% Diff	Calulation	-5.24								
Suspended solids, Total	<2 mg/l	TM022	7.5 #								
Alkalinity, Total as CaCO3	<2 mg/l	TM043	95 #								
Alkalinity,Total as CaCO3 (diss.filt)	<2 mg/l	TM043	95								
Alkalinity, Bicarbonate as CaCO3 (diss.filt)	<2 mg/l	TM043	95								
Organic Carbon, Total	<3 mg/l	TM090	14.3 #								
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	2.14 #								
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120	0.327 #								
Cadmium (diss.filt)	<0.1 µg/l	TM152	<0.1 #								
Chromium (diss.filt)	<0.22 µg/l	TM152	1.77 #								
Copper (diss.filt)	<0.85 µg/l	TM152	7.69 #								
Lead (diss.filt)	<0.02 µg/l	TM152	0.591 #								
Manganese (diss.filt)	<0.04 µg/l	TM152	25.4 #								
Nickel (diss.filt)	<0.15 µg/l	TM152	2.08 #								
Zinc (diss.filt)	<0.41 µg/l	TM152	11.5 #								
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172	2220 #								
Total EPH (C6-C40) (aq)	<100 µg/l	TM172	2220								
Nitrite as NO2	<0.05 mg/l	TM184	0.089 #								
Sulphate	<2 mg/l	TM184	26.5 #								
Chloride	<2 mg/l	TM184	37 #								
Nitrate as NO3	<0.3 mg/l	TM184	4.77 #								
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184	1.1 #								
Calcium (diss.filt)	<0.012 mg/l	TM228	34.5 #								
Sodium (diss.filt)	<0.076 mg/l	TM228	15.2 #								
Magnesium (diss.filt)	<0.036 mg/l	TM228	3.45 #								
Potassium (diss.filt)	<1 mg/l	TM228	15.6 #								
Iron (diss.filt)	<0.019 mg/l	TM228	0.0957 #								
pH	<1 pH Units	TM256	7.82 #								
MCPP (Mecoprop)	<0.04 µg/l	TM324	0.112								

Component	LOD/Units	Method	SW 201	SW 202	SW 203	SW 204	SW 205	SW 206
Ionic balance	% Diff	Calulation	-5.24	-4.45	-5.94	-8.04	-5.39	-6.23
Suspended solids, Total	<2 mg/l	TM022	7.5 #	5 #	105 #	5.5 #	10 #	
Alkalinity, Total as CaCO3	<2 mg/l	TM043	95 #	95 #	90 #	50 #	90 #	31.5 #
Alkalinity,Total as CaCO3 (diss.filt)	<2 mg/l	TM043	95	100	65	50.5	90	26
Alkalinity, Bicarbonate as CaCO3 (diss.filt)	<2 mg/l	TM043	95	100	65	50.5	90	26
Organic Carbon, Total	<3 mg/l	TM090	14.3 #	10.3 #	10.8 #	3.29 #	8.23 #	3.65 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	2.14 #	1.14 #	1.76 #	<0.2 #	0.735 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120	0.327 #	0.304 #	0.226 #	0.174 #	0.292 #	0.132 #
Cadmium (diss.filt)	<0.1 µg/l	TM152	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152	1.77 #	1.89 #	1.35 #	0.944 #	1.52 #	0.606 #
Copper (diss.filt)	<0.85 µg/l	TM152	7.69 #	6.79 #	6.41 #	4.59 #	6.69 #	3.58 #
Lead (diss.filt)	<0.02 µg/l	TM152	0.591 #	0.386 #	0.377 #	0.077 #	0.239 #	0.137 #
Manganese (diss.filt)	<0.04 µg/l	TM152	25.4 #	50.3 #	38.2 #	10.1 #	43 #	2.23 #
Nickel (diss.filt)	<0.15 µg/l	TM152	2.08 #	1.71 #	1.13 #	0.653 #	1.62 #	0.327 #
Zinc (diss.filt)	<0.41 µg/l	TM152	11.5 #	8.54 #	2.79 #	9.26 #	9.07 #	1.76 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172	2220 #	962 #	902 #	416 #	64.1 #	275 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172	2220	962	902	416	<100	275
Nitrite as NO2	<0.05 mg/l	TM184	0.089 #	0.09 #	0.056 #	<0.05 #	0.104 #	<0.05 #
Sulphate	<2 mg/l	TM184	26.5 #	21.8 #	20.5 #	10 #	22.9 #	8.1 #
Chloride	<2 mg/l	TM184	37 #	29.4 #	23.9 #	21.6 #	30.2 #	18.9 #
Nitrate as NO3	<0.3 mg/l	TM184	4.77 #	6.83 #	5.07 #	5.21 #	7.2 #	2.76 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184	1.1 #	1.57 #	1.16 #	1.18 #	1.66 #	0.631 #
Calcium (diss.filt)	<0.012 mg/l	TM228	34.5 #	36.5 #	23.9 #	20.3 #	34.1 #	12.7 #
Sodium (diss.filt)	<0.076 mg/l	TM228	15.2 #	13.2 #	9.47 #	10.1 #	13.8 #	7.91 #
Magnesium (diss.filt)	<0.036 mg/l	TM228	3.45 #	3.83 #	2.51 #	2.12 #	3.53 #	1.69 #
Potassium (diss.filt)	<1 mg/l	TM228	15.6 #	12.2 #	10.5 #	1.51 #	10.5 #	2.3 #
Iron (diss.filt)	<0.019 mg/l	TM228	0.0957 #	0.0633 #	0.072 #	0.0707 #	0.0683 #	0.0367 #
pH	<1 pH Units	TM256	7.82 #	7.66 #	8 #	7.63 #	7.75 #	7.62 #
MCPP (Mecoprop)	<0.04 µg/l	TM324	0.112	0.065	0.082	<0.04	0.054	<0.04

CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW 207
			Depth (m)	.
			Sample Type	Water(GW/SW)
			Date Sampled	10/02/2014
			Sampled Time	.
			Date Received	11/02/2014
			SDG Ref	140211-13
			Lab Sample No.(s)	8822812
			AGS Reference	
Ionic balance	% Diff	Calulation		-5.69
Suspended solids, Total	<2 mg/l	TM022		15.5 #
Alkalinity, Total as CaCO3	<2 mg/l	TM043		70 #
Alkalinity,Total as CaCO3 (diss.filt)	<2 mg/l	TM043		75
Alkalinity, Bicarbonate as CaCO3 (diss.filt)	<2 mg/l	TM043		75
Organic Carbon, Total	<3 mg/l	TM090		9.16 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		0.597 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.251 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		1.27 #
Copper (diss.filt)	<0.85 µg/l	TM152		6.85 #
Lead (diss.filt)	<0.02 µg/l	TM152		0.354 #
Manganese (diss.filt)	<0.04 µg/l	TM152		13.9 #
Nickel (diss.filt)	<0.15 µg/l	TM152		1.42 #
Zinc (diss.filt)	<0.41 µg/l	TM152		7.75 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		170 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		170
Nitrite as NO2	<0.05 mg/l	TM184		0.073 #
Sulphate	<2 mg/l	TM184		19.9 #
Chloride	<2 mg/l	TM184		27.9 #
Nitrate as NO3	<0.3 mg/l	TM184		7.02 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		1.61 #
Calcium (diss.filt)	<0.012 mg/l	TM228		28.1 #
Sodium (diss.filt)	<0.076 mg/l	TM228		13.3 #
Magnesium (diss.filt)	<0.036 mg/l	TM228		2.92 #
Potassium (diss.filt)	<1 mg/l	TM228		9.62 #
Iron (diss.filt)	<0.019 mg/l	TM228		0.0745 #
pH	<1 pH Units	TM256		7.83 #
MCPP (Mecoprop)	<0.04 µg/l	TM324		0.053

CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW 201	SW 202	SW 203	SW 204	SW 205	SW 206
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/02/2014	10/02/2014	10/02/2014	10/02/2014	10/02/2014	10/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014
			SDG Ref	140211-13	140211-13	140211-13	140211-13	140211-13	140211-13
			Lab Sample No.(s)	8822805	8822807	8822808	8822809	8822810	8822811
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		<7 #	<7 #	<7 #	<7 #	<7 #	<7 #
Toluene	<4 µg/l	TM245		<4 #	<4 #	<4 #	<4 #	<4 #	<4 #
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	<8 #	<8 #	<8 #	<8 #
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	<28	<28	<28	<28
EPH (C6-C10)	<100 µg/l	TM245		<100	<100	<100	<100	<100	<100

CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Customer Sample R	SW 207
Depth (m)	.
Sample Type	Water(GW/SW)
Date Sampled	10/02/2014
Sampled Time	.
Date Received	11/02/2014
SDG Ref	140211-13
Lab Sample No.(s)	8822812
AGS Reference	

Component	LOD/Units	Method	
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245	<3 #
Benzene	<7 µg/l	TM245	<7 #
Toluene	<4 µg/l	TM245	<4 #
Ethylbenzene	<5 µg/l	TM245	<5 #
m,p-Xylene	<8 µg/l	TM245	<8 #
o-Xylene	<3 µg/l	TM245	<3 #
Sum of detected BTEX	<28 µg/l	TM245	<28
EPH (C6-C10)	<100 µg/l	TM245	<100

CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW 201	SW 202	SW 203	SW 204	SW 205	SW 206
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/02/2014	10/02/2014	10/02/2014	10/02/2014	10/02/2014	10/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014
			SDG Ref	140211-13	140211-13	140211-13	140211-13	140211-13	140211-13
			Lab Sample No.(s)	8822805	8822807	8822808	8822809	8822810	8822811
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		2.22 #	<2 #	2.22 #	<2 #	<2 #	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW 201	SW 202	SW 203	SW 204	SW 205	SW 206
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/02/2014	10/02/2014	10/02/2014	10/02/2014	10/02/2014	10/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014
			SDG Ref	140211-13	140211-13	140211-13	140211-13	140211-13	140211-13
			Lab Sample No.(s)	8822805	8822807	8822808	8822809	8822810	8822811
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbazole (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chrysene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Fluorene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isophorone (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenanthrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Customer Sample R	SW 207
Depth (m)	.
Sample Type	Water(GW/SW)
Date Sampled	10/02/2014
Sampled Time	.
Date Received	11/02/2014
SDG Ref	140211-13
Lab Sample No.(s)	8822812
AGS Reference	

Component	LOD/Units	Method	
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176	<1
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176	<1
Azobenzene (aq)	<1 µg/l	TM176	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176	<1 #
Acenaphthene (aq)	<1 µg/l	TM176	<1 #
Anthracene (aq)	<1 µg/l	TM176	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Customer Sample R	SW 207
Depth (m)	.
Sample Type	Water(GW/SW)
Date Sampled	10/02/2014
Sampled Time	.
Date Received	11/02/2014
SDG Ref	140211-13
Lab Sample No.(s)	8822812
AGS Reference	

Component	LOD/Units	Method					
Benzo(a)anthracene (aq)	<1 µg/l	TM176	<1 #				
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176	<1 #				
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176	<1 #				
Benzo(a)pyrene (aq)	<1 µg/l	TM176	<1 #				
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176	<1 #				
Carbazole (aq)	<1 µg/l	TM176	<1 #				
Chrysene (aq)	<1 µg/l	TM176	<1 #				
Dibenzofuran (aq)	<1 µg/l	TM176	<1 #				
n-Dibutyl phthalate (aq)	<1 µg/l	TM176	<1 #				
Diethyl phthalate (aq)	<1 µg/l	TM176	<1 #				
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176	<1 #				
Dimethyl phthalate (aq)	<1 µg/l	TM176	<1 #				
n-Dioctyl phthalate (aq)	<5 µg/l	TM176	<5 #				
Fluoranthene (aq)	<1 µg/l	TM176	<1 #				
Fluorene (aq)	<1 µg/l	TM176	<1 #				
Hexachlorobenzene (aq)	<1 µg/l	TM176	<1 #				
Hexachlorobutadiene (aq)	<1 µg/l	TM176	<1 #				
Pentachlorophenol (aq)	<1 µg/l	TM176	<1				
Phenol (aq)	<1 µg/l	TM176	<1				
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176	<1 #				
Hexachloroethane (aq)	<1 µg/l	TM176	<1 #				
Nitrobenzene (aq)	<1 µg/l	TM176	<1 #				
Naphthalene (aq)	<1 µg/l	TM176	<1 #				
Isophorone (aq)	<1 µg/l	TM176	<1 #				
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176	<1				
Phenanthrene (aq)	<1 µg/l	TM176	<1 #				
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176	<1 #				
Pyrene (aq)	<1 µg/l	TM176	<1 #				

CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW 201	SW 202	SW 203	SW 204	SW 205	SW 206
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/02/2014	10/02/2014	10/02/2014	10/02/2014	10/02/2014	10/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014
			SDG Ref	140211-13	140211-13	140211-13	140211-13	140211-13	140211-13
			Lab Sample No.(s)	8822805	8822807	8822808	8822809	8822810	8822811
			AGS Reference						
Dibromofluoromethane**	%	TM208		116	116	115	118	118	115
Toluene-d8**	%	TM208		99.3	99.2	98.7	99.2	99.7	99.4
4-Bromofluorobenzene**	%	TM208		96.6	97.3	97.3	97	98.1	97.1
Dichlorodifluoromethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		3.22 #	3.2 #	4.46 #	2.66 #	3.57 #	4.3 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Benzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		3.07 #	2.96 #	3.8 #	2.11 #	3.1 #	3.3 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW 201	SW 202	SW 203	SW 204	SW 205	SW 206
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/02/2014	10/02/2014	10/02/2014	10/02/2014	10/02/2014	10/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014
			SDG Ref	140211-13	140211-13	140211-13	140211-13	140211-13	140211-13
			Lab Sample No.(s)	8822805	8822807	8822808	8822809	8822810	8822811
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		2.07 #	1.98 #	3.03 #	1.6 #	2.1 #	2.24 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW 201	SW 202	SW 203	SW 204	SW 205	SW 206
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/02/2014	10/02/2014	10/02/2014	10/02/2014	10/02/2014	10/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014
			SDG Ref	140211-13	140211-13	140211-13	140211-13	140211-13	140211-13
			Lab Sample No.(s)	8822805	8822807	8822808	8822809	8822810	8822811
			AGS Reference						
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Customer Sample R	SW 207
Depth (m)	.
Sample Type	Water(GW/SW)
Date Sampled	10/02/2014
Sampled Time	.
Date Received	11/02/2014
SDG Ref	140211-13
Lab Sample No.(s)	8822812
AGS Reference	

Component	LOD/Units	Method	
Dibromofluoromethane**	%	TM208	116
Toluene-d8**	%	TM208	99.9
4-Bromofluorobenzene**	%	TM208	97.6
Dichlorodifluoromethane	<1 µg/l	TM208	<1
Chloromethane	<1 µg/l	TM208	<1 #
Vinyl chloride	<1 µg/l	TM208	<1 #
Bromomethane	<1 µg/l	TM208	<1 #
Chloroethane	<1 µg/l	TM208	<1 #
Trichlorofluoromethane	<1 µg/l	TM208	<1 #
1,1-Dichloroethene	<1 µg/l	TM208	<1 #
Carbon disulphide	<1 µg/l	TM208	<1 #
Dichloromethane	<3 µg/l	TM208	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208	<1 #
1,1-Dichloroethane	<1 µg/l	TM208	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208	<1 #
2,2-Dichloropropane	<1 µg/l	TM208	<1
Bromochloromethane	<1 µg/l	TM208	<1 #
Chloroform	<1 µg/l	TM208	3.14 #
1,1,1-Trichloroethane	<1 µg/l	TM208	<1 #
1,1-Dichloropropene	<1 µg/l	TM208	<1 #
Carbontetrachloride	<1 µg/l	TM208	<1 #
1,2-Dichloroethane	<1 µg/l	TM208	<1
Benzene	<1 µg/l	TM208	<1 #
Trichloroethene	<1 µg/l	TM208	<1 #
1,2-Dichloropropane	<1 µg/l	TM208	<1 #
Dibromomethane	<1 µg/l	TM208	<1 #
Bromodichloromethane	<1 µg/l	TM208	2.59 #
cis-1,3-Dichloropropene	<1 µg/l	TM208	<1 #
Toluene	<1 µg/l	TM208	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Customer Sample R	SW 207								
Depth (m)	.								
Sample Type	Water(GW/SW)								
Date Sampled	10/02/2014								
Sampled Time	.								
Date Received	11/02/2014								
SDG Ref	140211-13								
Lab Sample No.(s)	8822812								
AGS Reference									
Component	**LOD/Units**	**Method**							
1,3-Dichloropropane	<1 µg/l	TM208	<1 #						
Tetrachloroethene	<1 µg/l	TM208	<1 #						
Dibromochloromethane	<1 µg/l	TM208	1.78 #						
1,2-Dibromoethane	<1 µg/l	TM208	<1 #						
Chlorobenzene	<1 µg/l	TM208	<1 #						
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208	<1 #						
Ethylbenzene	<1 µg/l	TM208	<1 #						
m,p-Xylene	<1 µg/l	TM208	<1 #						
o-Xylene	<1 µg/l	TM208	<1 #						
Styrene	<1 µg/l	TM208	<1 #						
Bromoform	<1 µg/l	TM208	<1 #						
Isopropylbenzene	<1 µg/l	TM208	<1 #						
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208	<1						
1,2,3-Trichloropropane	<1 µg/l	TM208	<1 #						
Bromobenzene	<1 µg/l	TM208	<1 #						
Propylbenzene	<1 µg/l	TM208	<1 #						
2-Chlorotoluene	<1 µg/l	TM208	<1 #						
1,3,5-Trimethylbenzene	<1 µg/l	TM208	<1 #						
4-Chlorotoluene	<1 µg/l	TM208	<1 #						
tert-Butylbenzene	<1 µg/l	TM208	<1 #						
1,2,4-Trimethylbenzene	<1 µg/l	TM208	<1 #						
sec-Butylbenzene	<1 µg/l	TM208	<1 #						
4-iso-Propyltoluene	<1 µg/l	TM208	<1 #						
1,3-Dichlorobenzene	<1 µg/l	TM208	<1 #						
1,4-Dichlorobenzene	<1 µg/l	TM208	<1 #						
n-Butylbenzene	<1 µg/l	TM208	<1 #						
1,2-Dichlorobenzene	<1 µg/l	TM208	<1						
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208	<1						
1,2,4-Trichlorobenzene	<1 µg/l	TM208	<1 #						
Hexachlorobutadiene	<1 µg/l	TM208	<1 #						
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208	<1 #						
Naphthalene	<1 µg/l	TM208	<1 #						

CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Customer Sample R			SW 207
Depth (m)			.
Sample Type			Water(GW/SW)
Date Sampled			10/02/2014
Sampled Time			.
Date Received			11/02/2014
SDG Ref			140211-13
Lab Sample No.(s)			8822812
AGS Reference			
Component	**LOD/Units**	**Method**	
1,2,3-Trichlorobenzene	<1 µg/l	TM208	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208	<1

CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
Calulation				
TM022	Method 2540D, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part120 1981;BS EN 872	Determination of total suspended solids in waters		
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples		
TM061	Method for the Determination of EPH,Massachusetts Dept.of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)		
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM120	Method 2510B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part 9:1970	Determination of Electrical Conductivity using a Conductivity Meter		
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS		
TM172	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	EPH in Waters		
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters		
TM228	US EPA Method 6010B	Determination of Major Cations in Water by iCap 6500 Duo ICP-OES		
TM245	By GC-FID	Determination of GRO by Headspace in waters		
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter		
TM324		Analysis of Acid Herbicides in Aqueous Sample by LCQQQ		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	8822805	8822807	8822808	8822809	8822810	8822811	8822812
Customer Sample Ref.	SW 201	SW 202	SW 203	SW 204	SW 205	SW 206	SW 207
AGS Ref.							
Depth							
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Acid Herbicides by LCQQQ (aq)	17-Feb-2014	17-Feb-2014	17-Feb-2014	17-Feb-2014	17-Feb-2014	17-Feb-2014	17-Feb-2014
Alkalinity as CaCO3	16-Feb-2014	13-Feb-2014	16-Feb-2014	16-Feb-2014	13-Feb-2014	17-Feb-2014	13-Feb-2014
Alkalinity Filtered as CaCO3	16-Feb-2014	16-Feb-2014	16-Feb-2014	18-Feb-2014	16-Feb-2014	18-Feb-2014	16-Feb-2014
Ammoniacal Nitrogen	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014
Anions by Kone (w)	18-Feb-2014	18-Feb-2014	18-Feb-2014	18-Feb-2014	18-Feb-2014	18-Feb-2014	18-Feb-2014
Conductivity (at 20 deg.C)	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014
Dissolved Metals by ICP-MS	14-Feb-2014	14-Feb-2014	14-Feb-2014	14-Feb-2014	14-Feb-2014	14-Feb-2014	14-Feb-2014
EPH (DRO) (C10-C40) Aqueous (W)	14-Feb-2014	14-Feb-2014	14-Feb-2014	14-Feb-2014	14-Feb-2014	14-Feb-2014	14-Feb-2014
GRO by GC-FID (W)	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014
Ionic Balance	18-Feb-2014	18-Feb-2014	18-Feb-2014	18-Feb-2014	18-Feb-2014	18-Feb-2014	18-Feb-2014
Metals by iCap-OES Dissolved (W)	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014
Nitrite by Kone (w)	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014
pH Value	13-Feb-2014	13-Feb-2014	14-Feb-2014	14-Feb-2014	13-Feb-2014	13-Feb-2014	14-Feb-2014
Suspended Solids	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014
SVOC MS (W) - Aqueous	18-Feb-2014	18-Feb-2014	18-Feb-2014	18-Feb-2014	18-Feb-2014	18-Feb-2014	18-Feb-2014
Total EPH (aq)	19-Feb-2014	19-Feb-2014	19-Feb-2014	19-Feb-2014	19-Feb-2014	19-Feb-2014	19-Feb-2014
Total Organic and Inorganic Carbon	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014	13-Feb-2014
VOC MS (W)	14-Feb-2014	14-Feb-2014	14-Feb-2014	14-Feb-2014	14-Feb-2014	14-Feb-2014	14-Feb-2014

CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

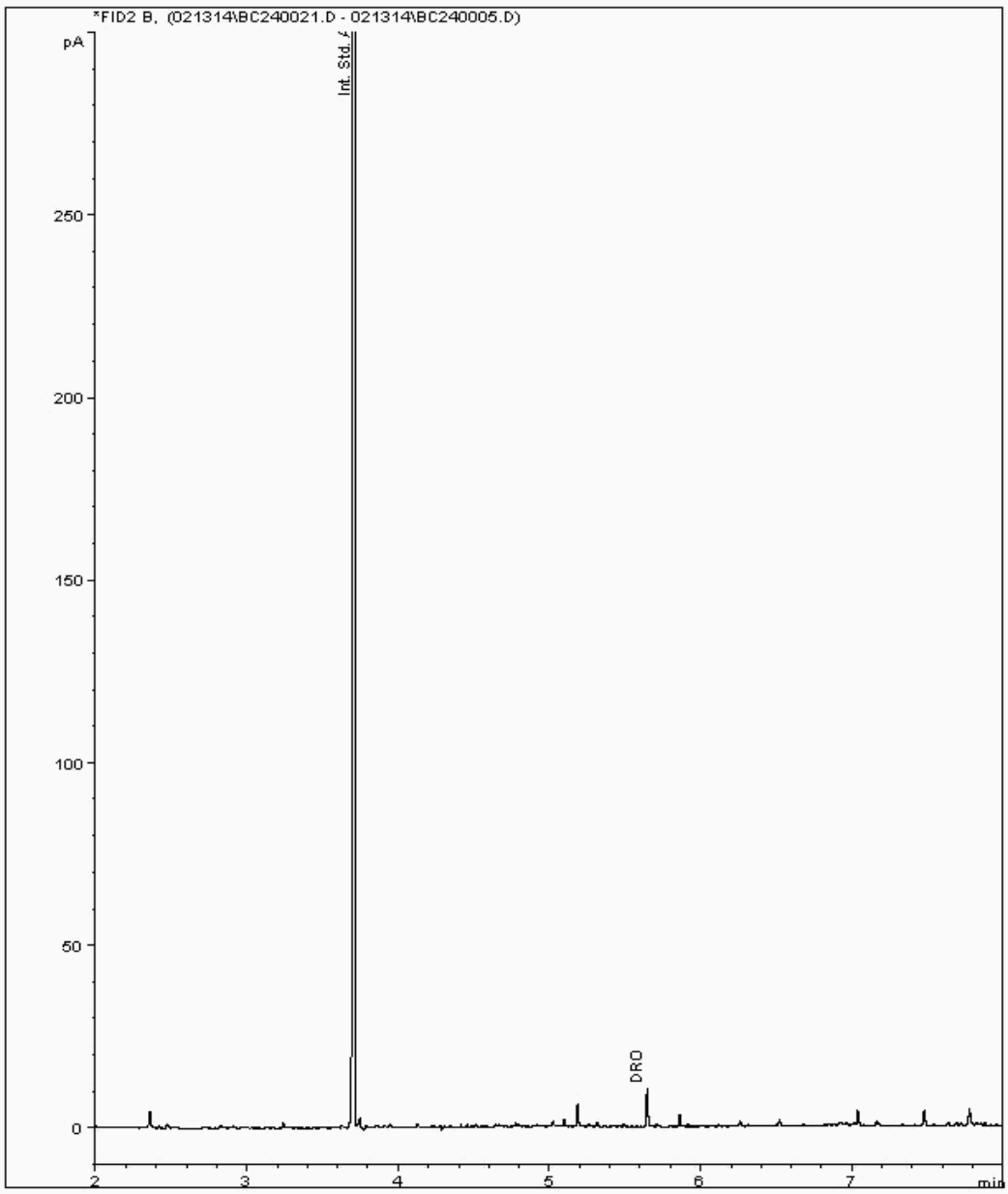
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8830216
Sample ID : SW 205

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8401651-8830216
Date Acquired : 13/02/2014 22:09:56 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

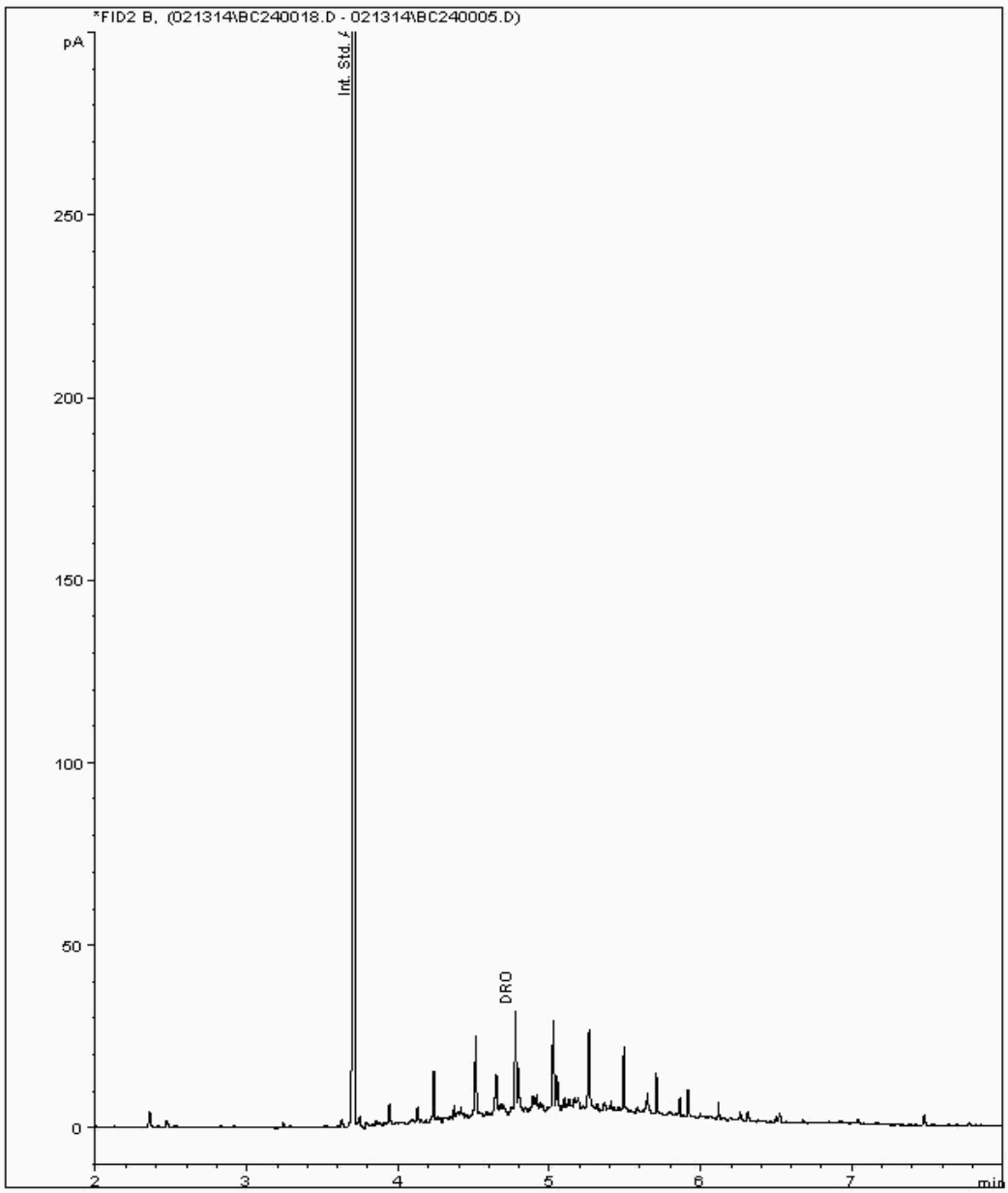
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8830301
Sample ID : SW 204

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8401630-8830301
Date Acquired : 13/02/2014 21:03:56 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

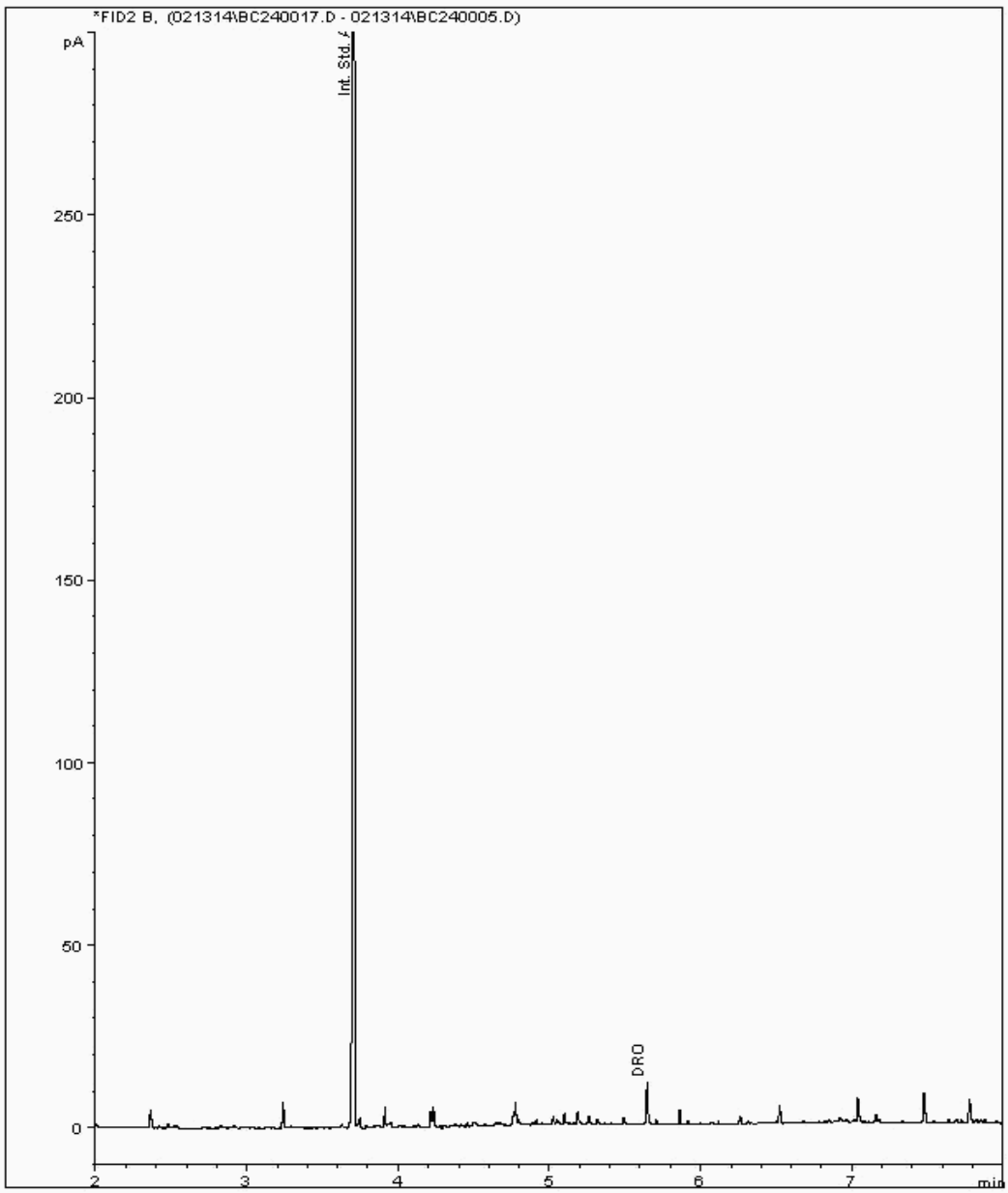
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8830341
Sample ID : SW 207

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8401694-8830341
Date Acquired : 13/02/2014 20:41:58 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

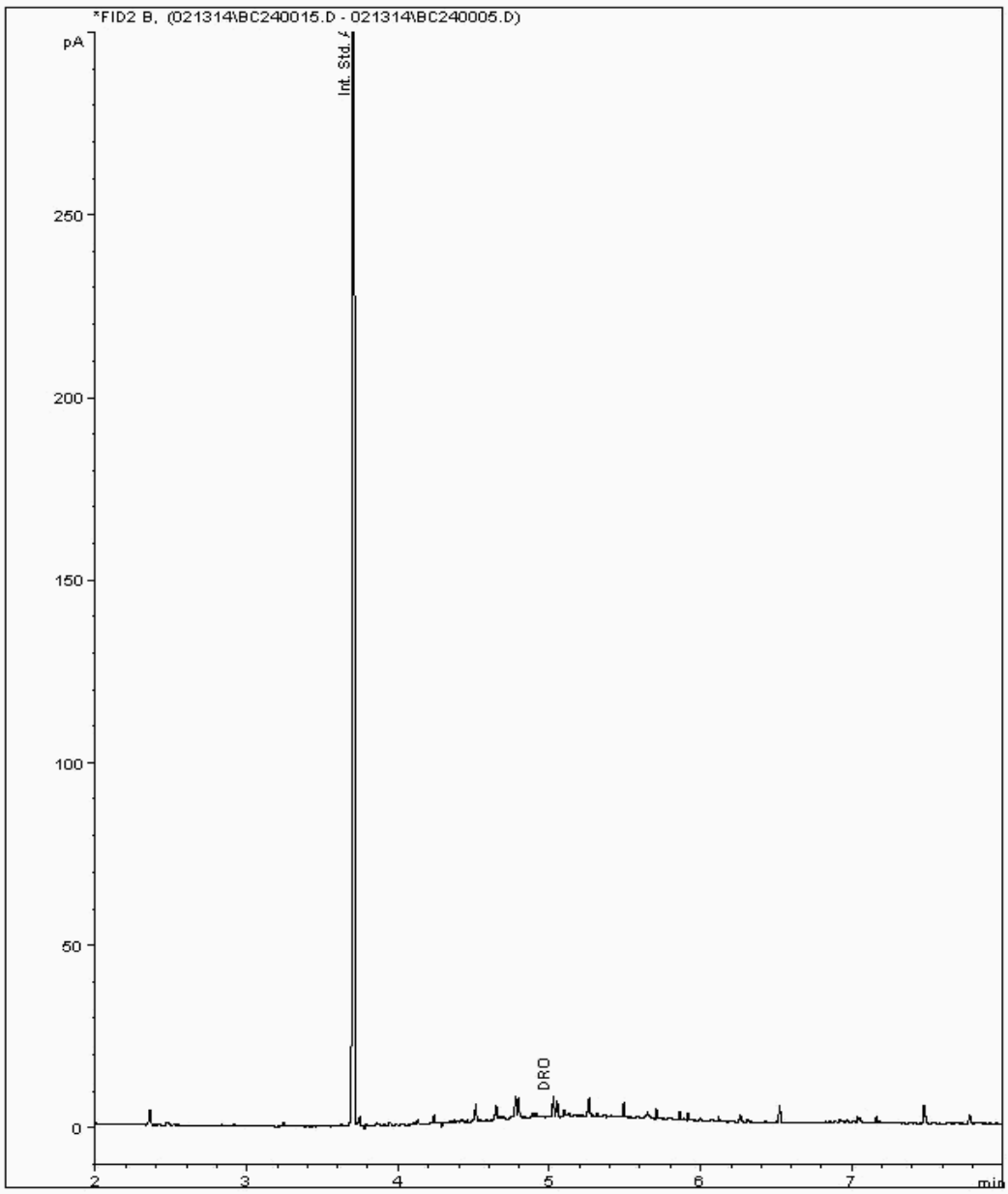
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8830371
Sample ID : SW 206

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8401672-8830371
Date Acquired : 13/02/2014 19:57:57 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

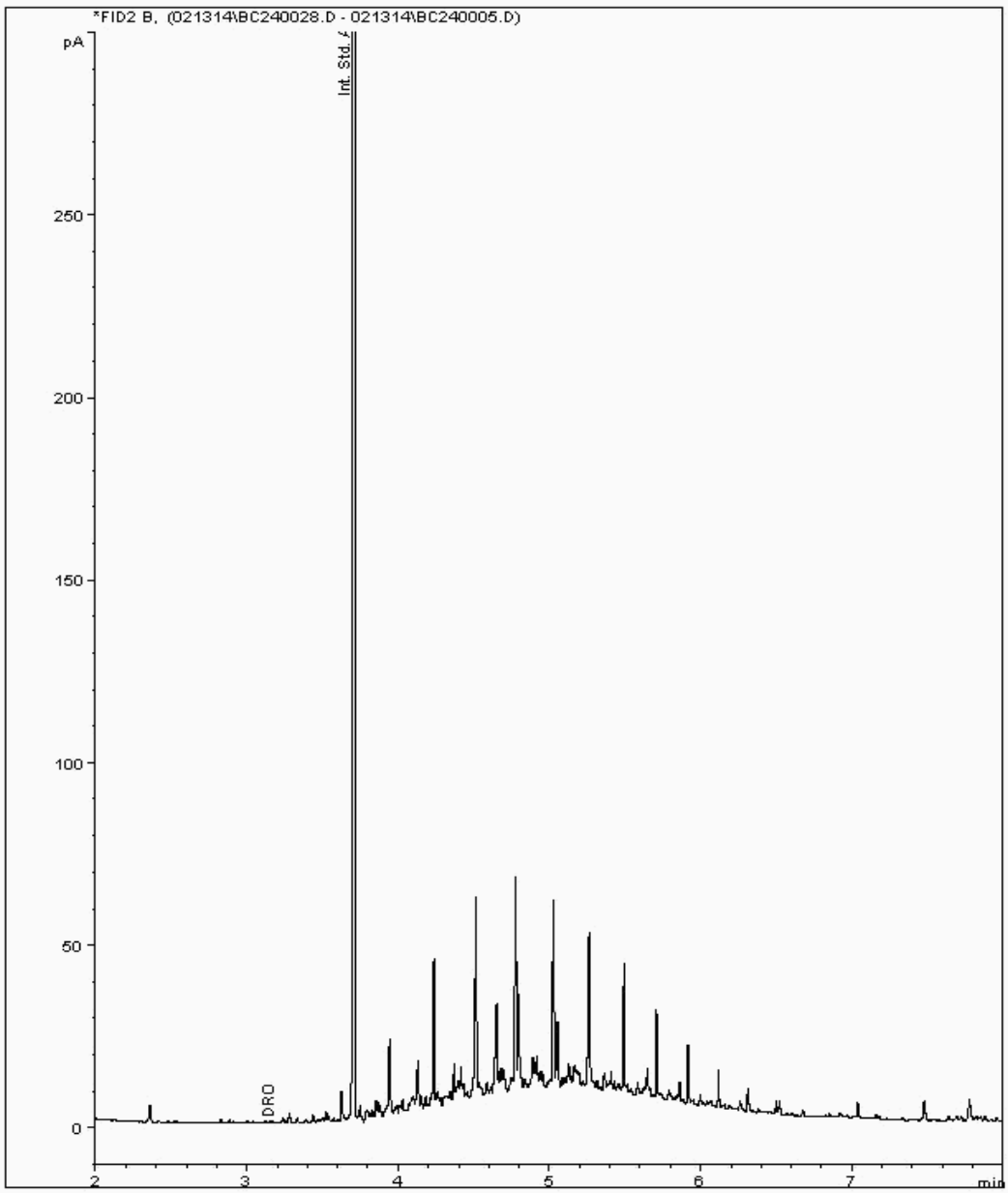
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8831785
Sample ID : SW 202

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8401588-8831785
Date Acquired : 14/02/2014 00:45:44 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

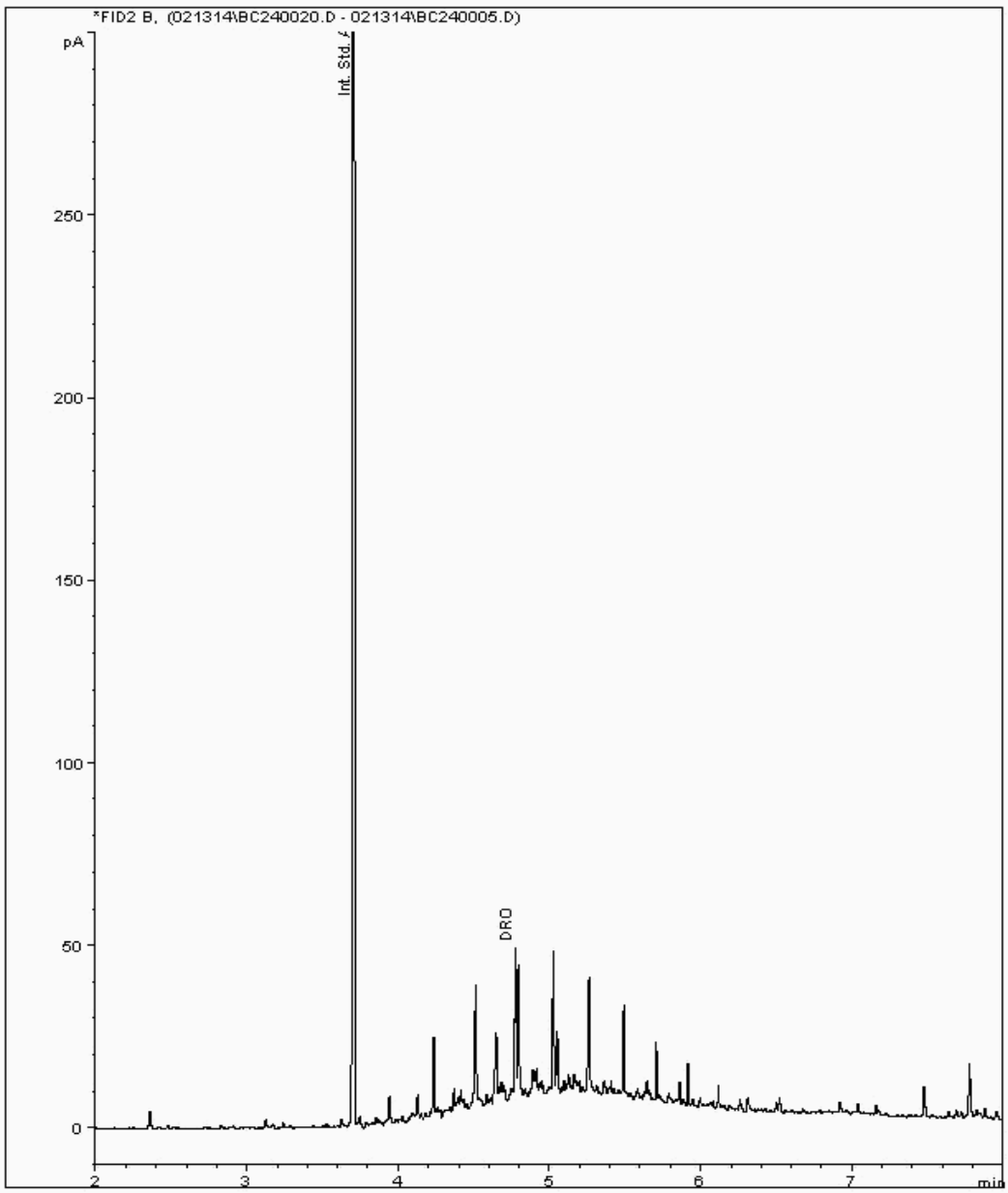
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8831811
Sample ID : SW 203

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8401609-8831811
Date Acquired : 13/02/2014 21:48:05 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

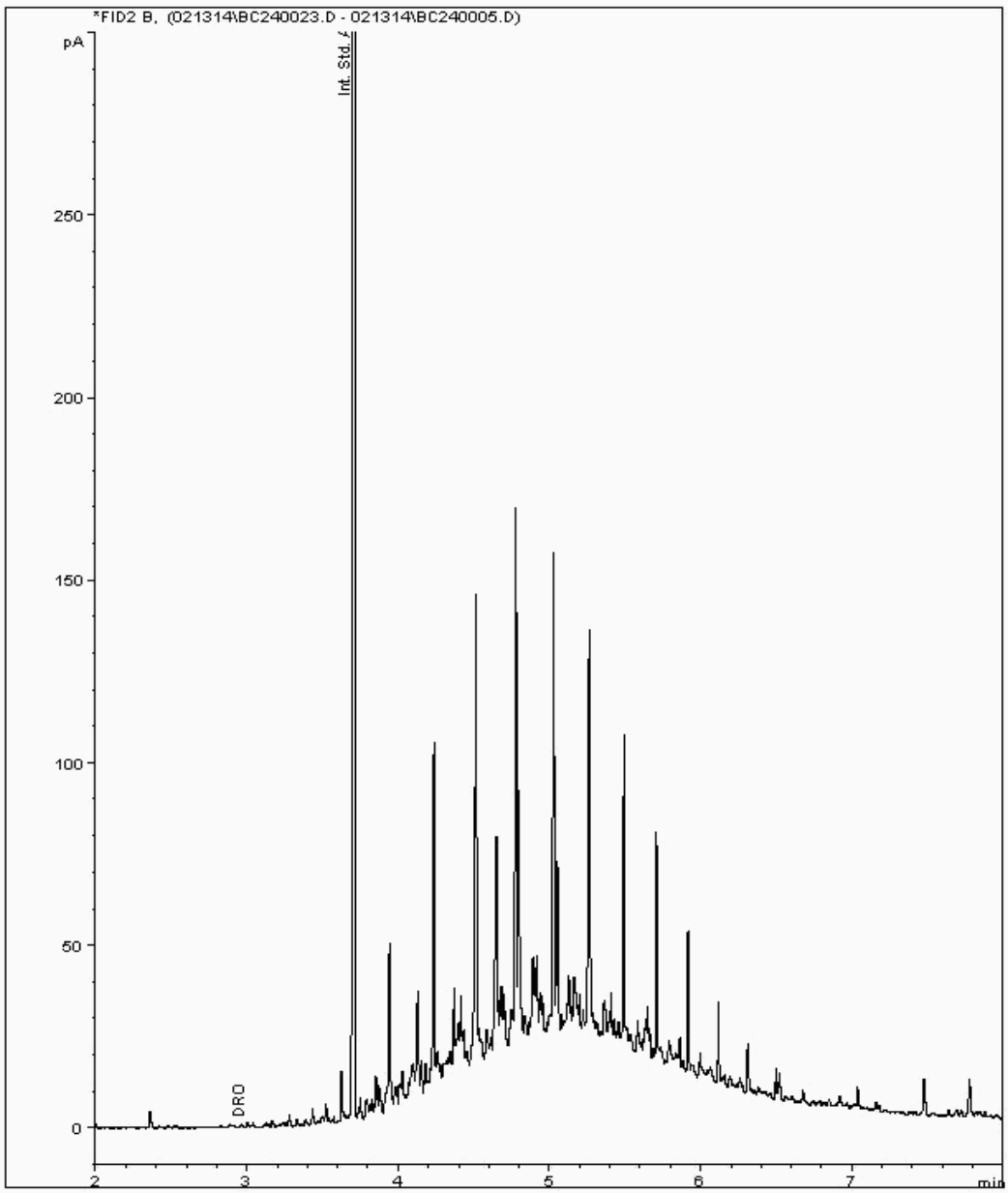
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8831829
Sample ID : SW 201

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8401567-8831829
Date Acquired : 13/02/2014 22:54:16 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

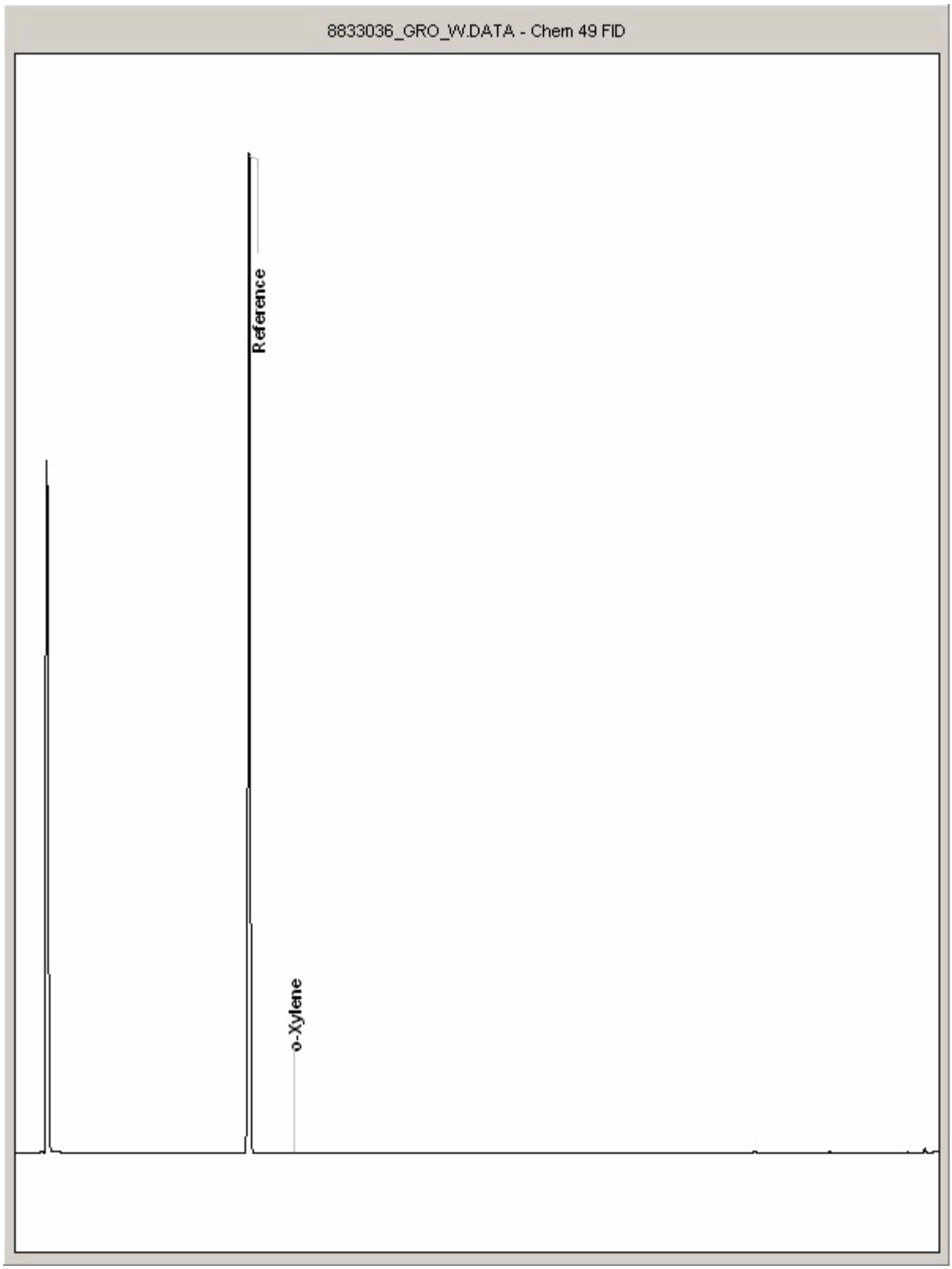
SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8833036
Sample ID : SW 207

Depth :



CERTIFICATE OF ANALYSIS

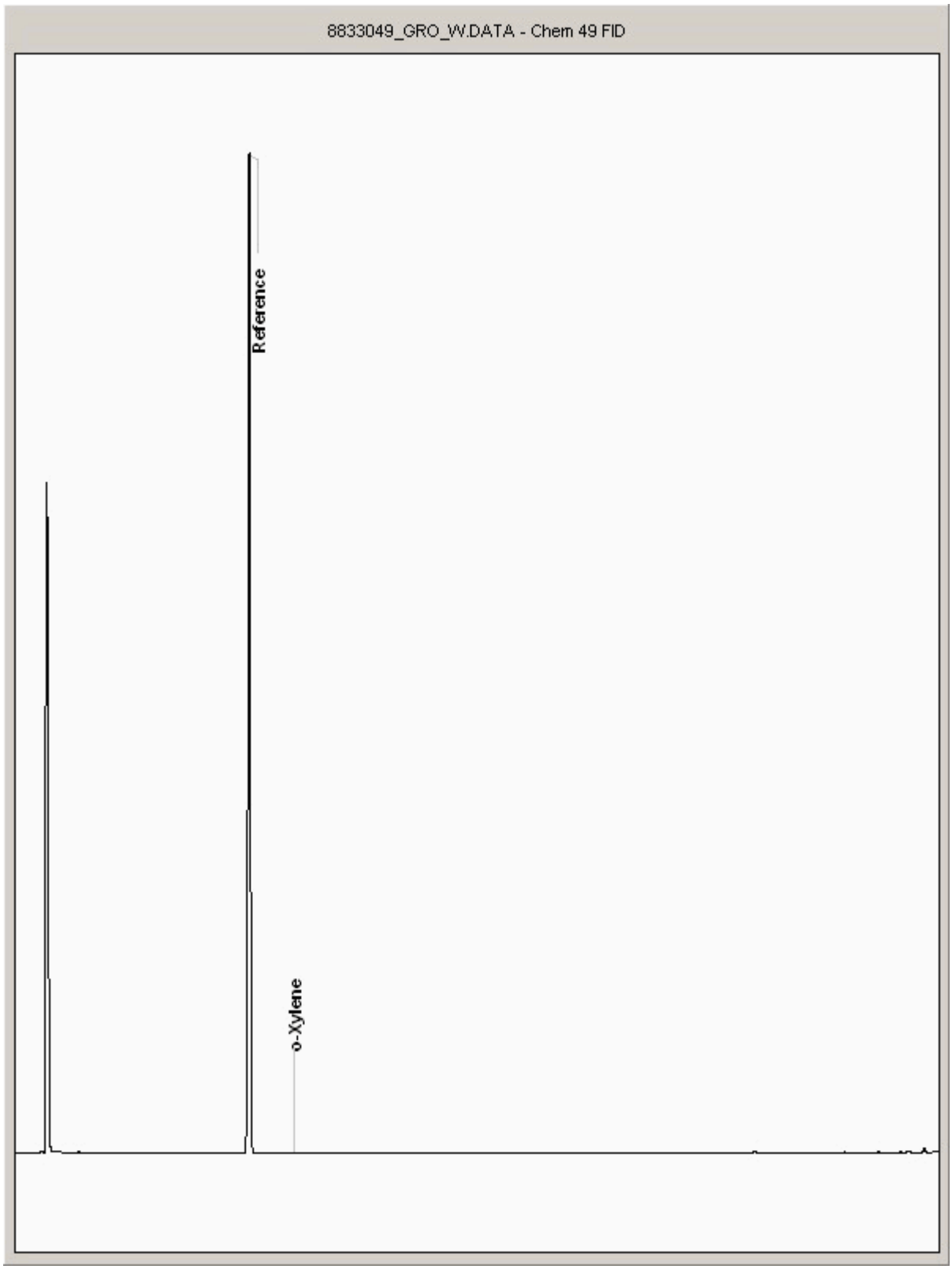
SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8833049
Sample ID : SW 203

Depth :



CERTIFICATE OF ANALYSIS

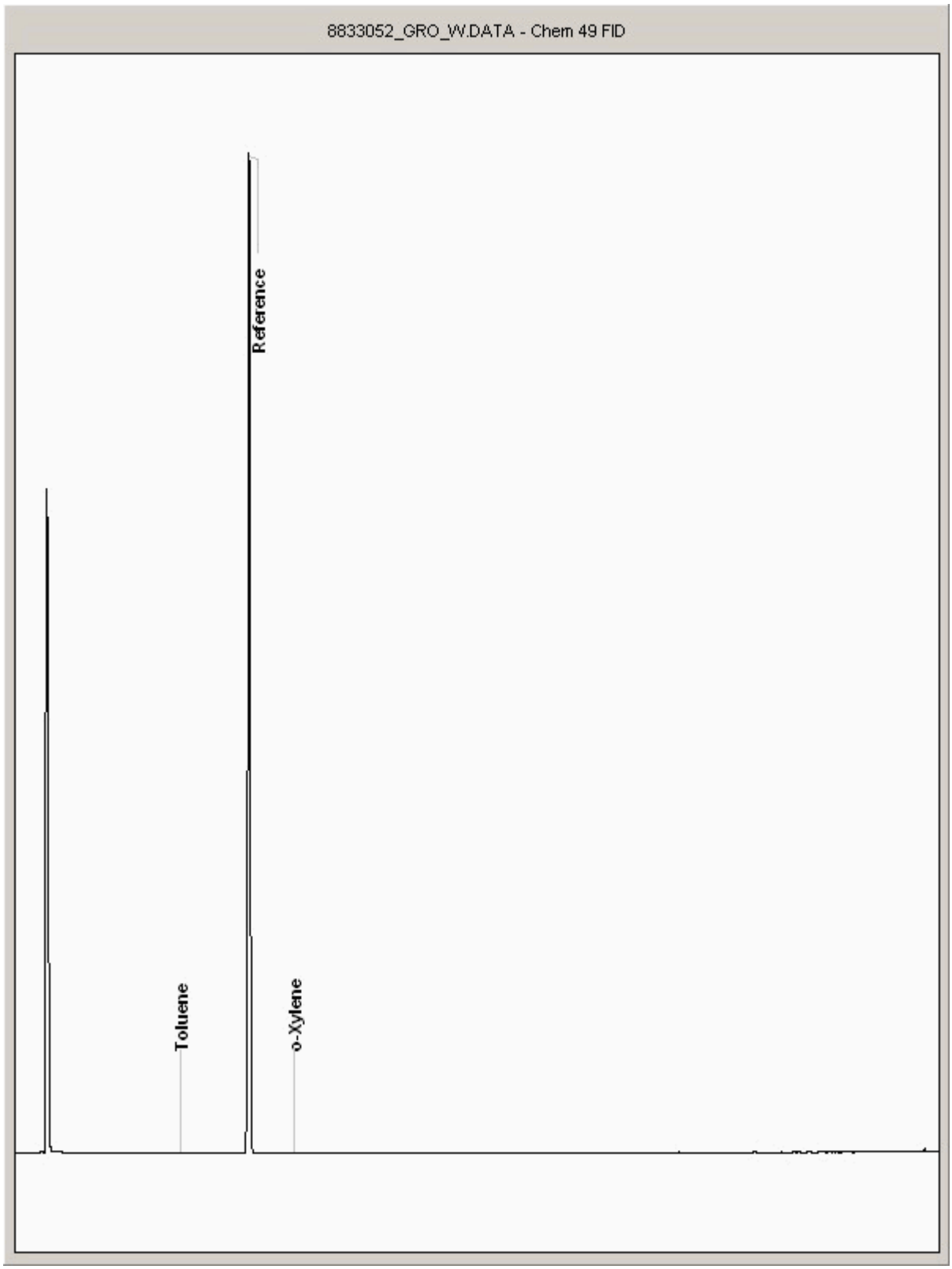
SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8833052
Sample ID : SW 202

Depth :



CERTIFICATE OF ANALYSIS

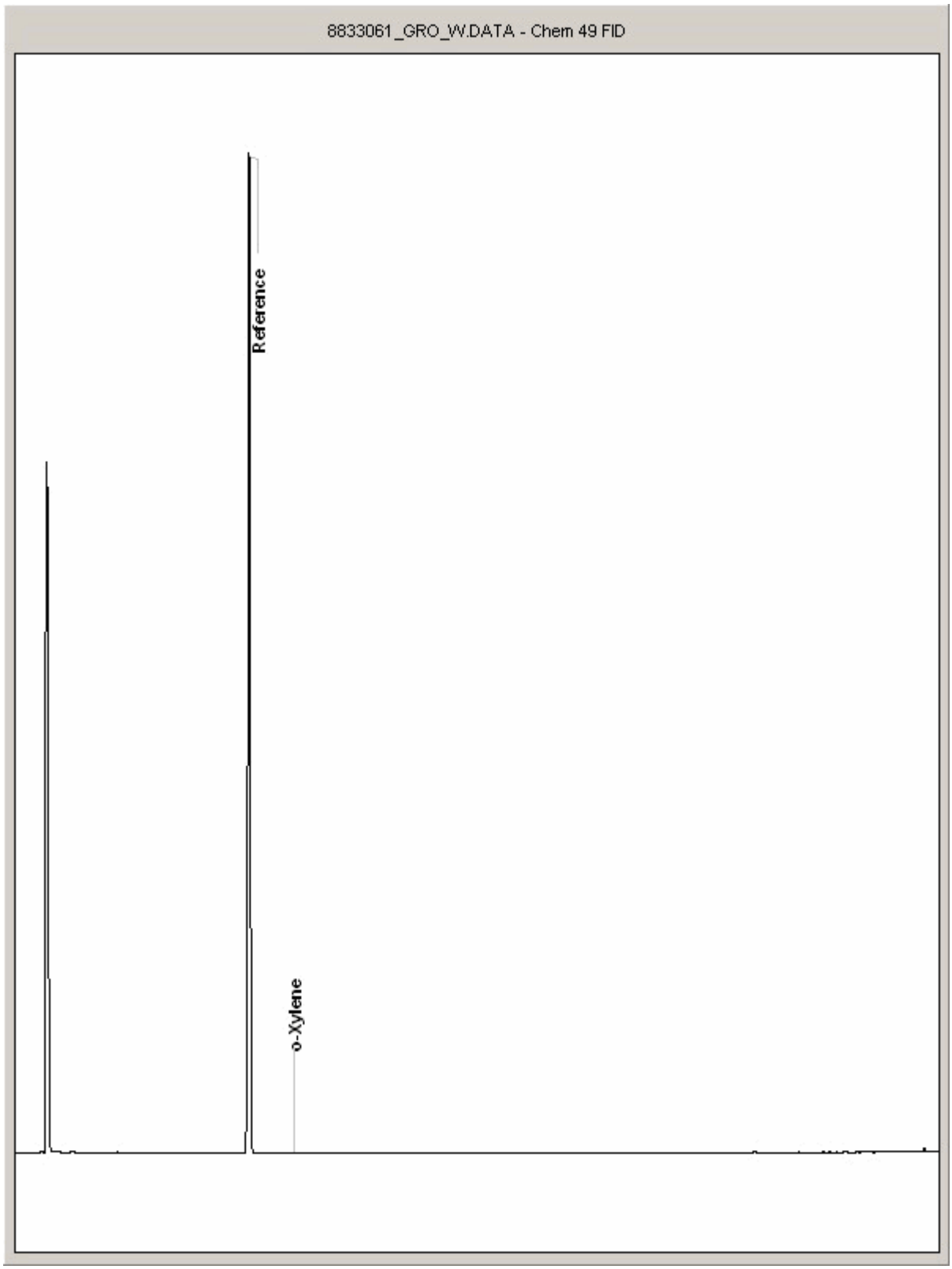
SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8833061
Sample ID : SW 201

Depth :



CERTIFICATE OF ANALYSIS

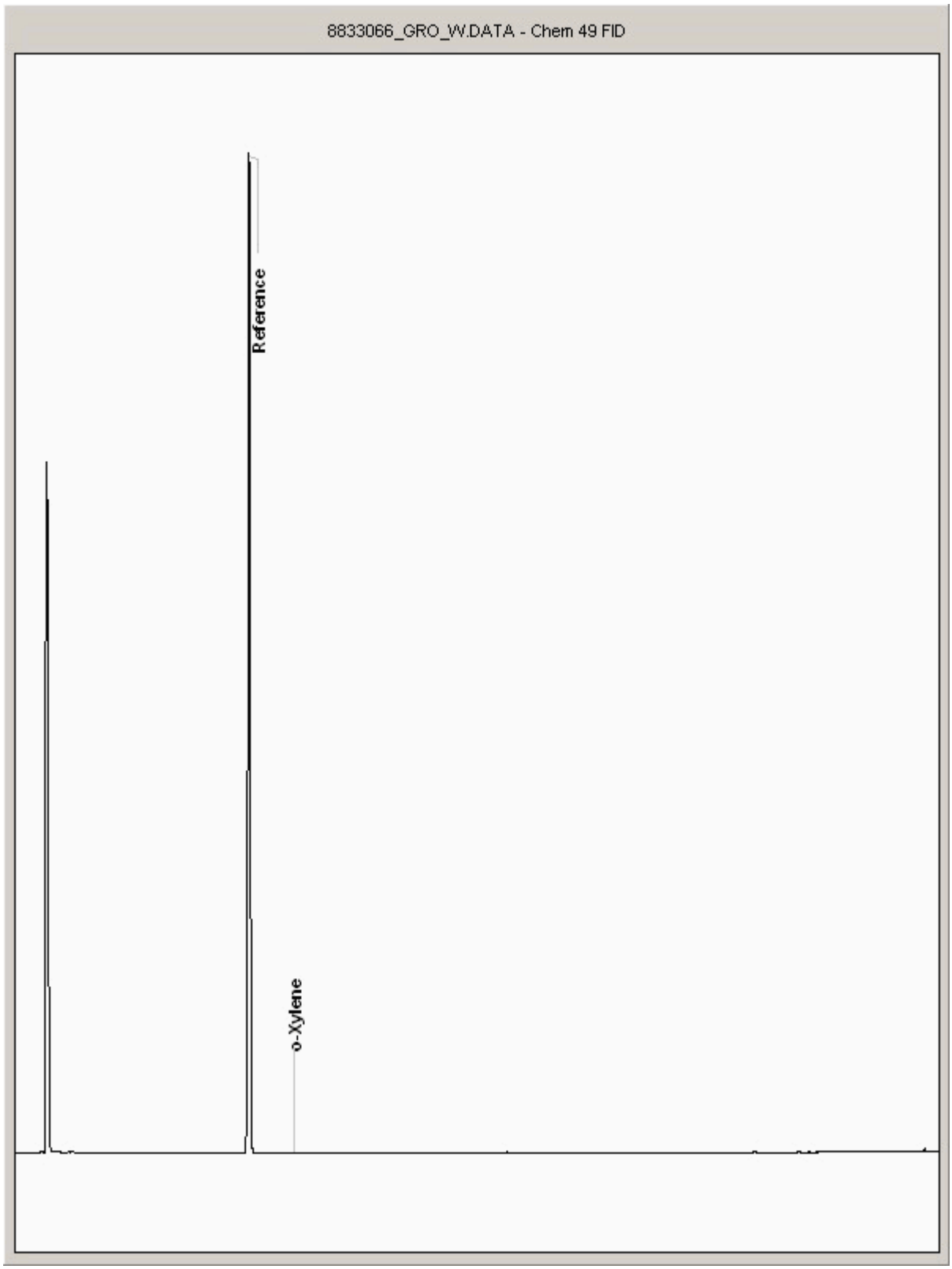
SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8833066
Sample ID : SW 204

Depth :



CERTIFICATE OF ANALYSIS

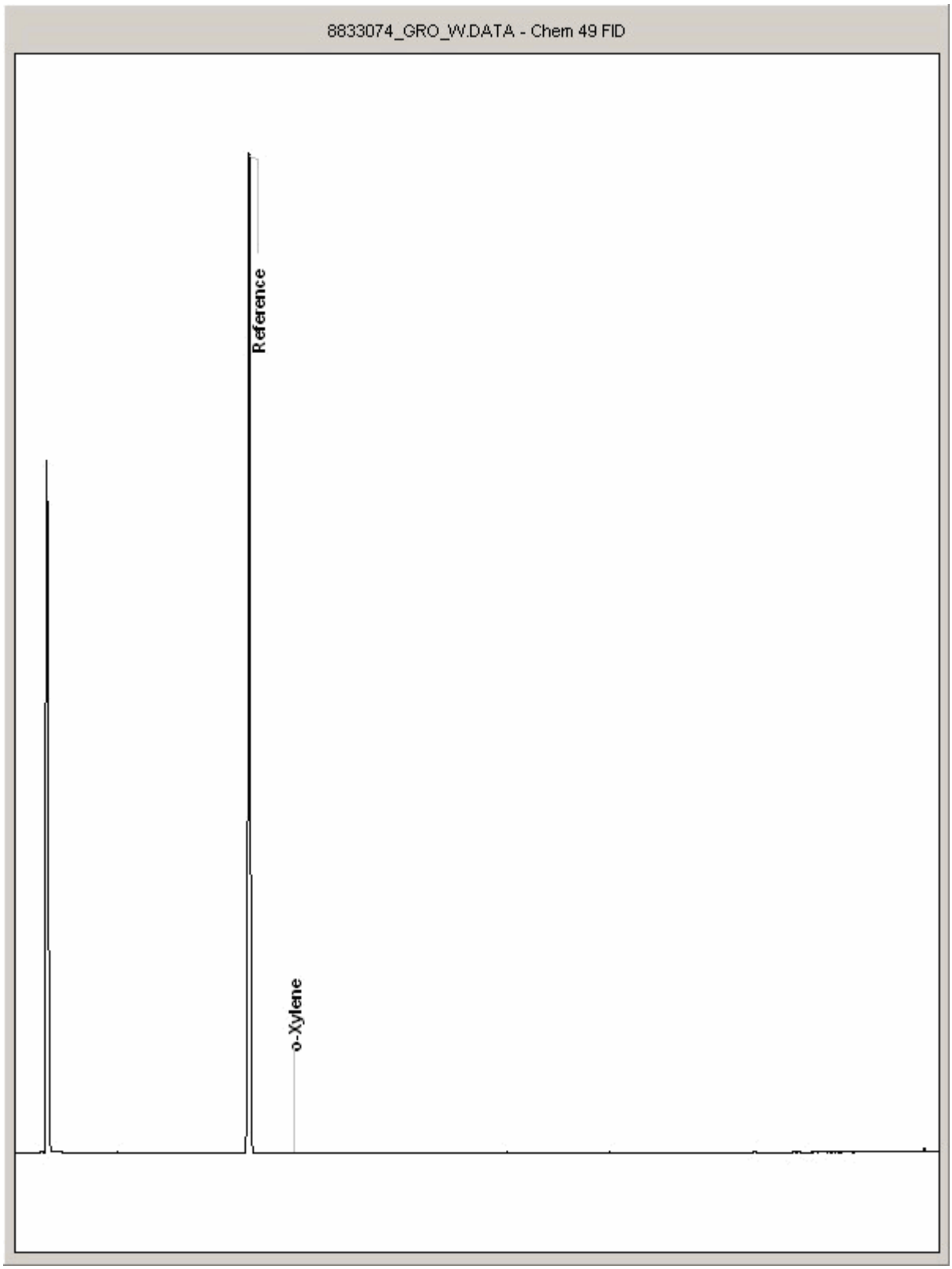
SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8833074
Sample ID : SW 205

Depth :



CERTIFICATE OF ANALYSIS

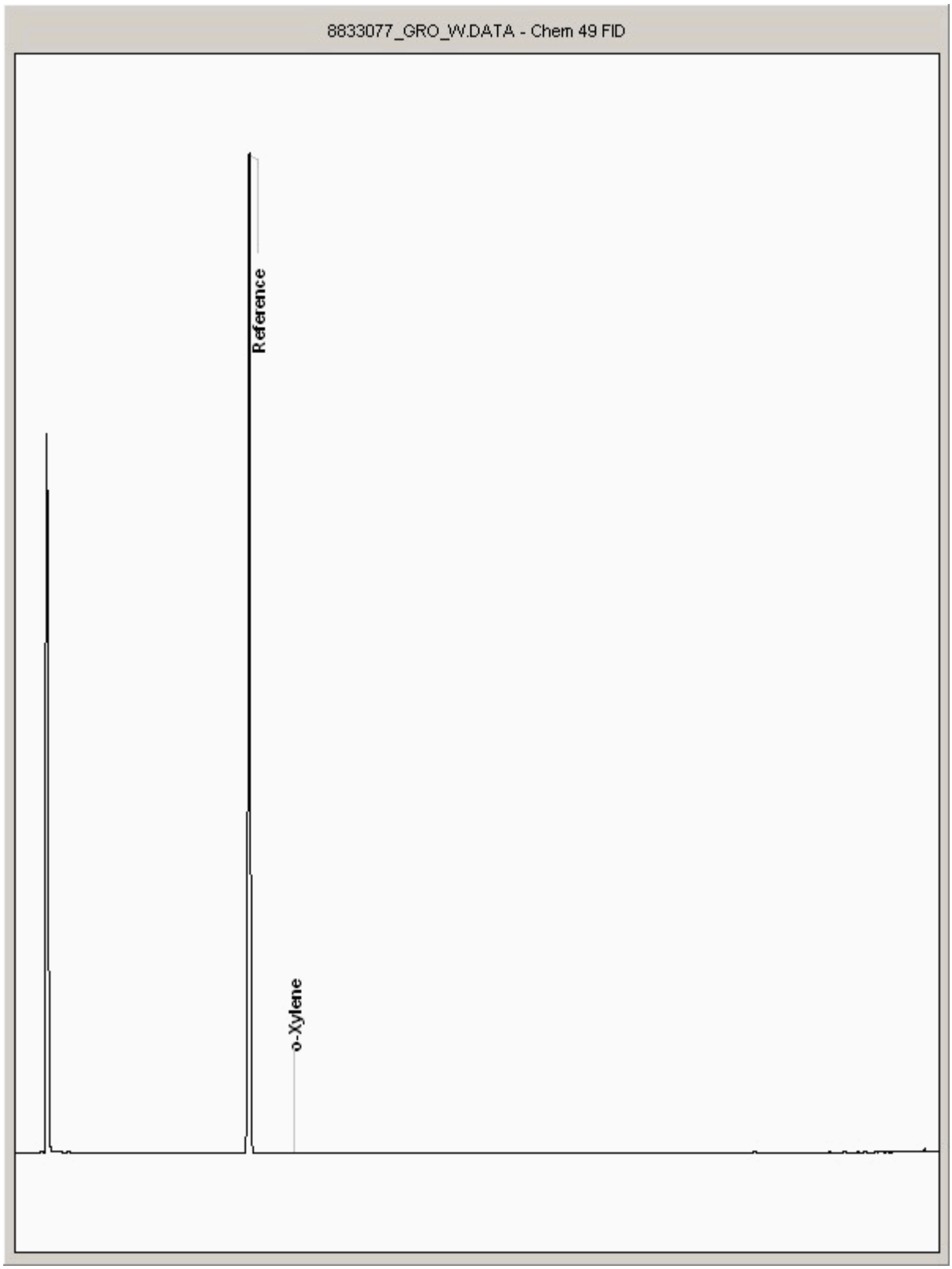
SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8833077
Sample ID : SW 206

Depth :



CERTIFICATE OF ANALYSIS

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA Leach tests, flash point, ammonium as NH4 by the BRE method, VOC TICS, SVOC TICS, TOF-MS SCAN/SEARCH and TOF-MS TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for both soil jars, tubs and volatile jars. All waters and vials will be discarded 10 days after the analysis is completed (e-mailed). All material removed during an asbestos containing material screen and analysed for the presence of asbestos will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be screened in house for the presence of large asbestos containing material fragments/pieces. If no asbestos containing material is found this will be reported as 'no asbestos containing material detected'. If asbestos containing material is detected it will be removed and analysed by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If asbestos containing material is present no further analysis will be undertaken. At no point is the fibre content of the soil sample determined.

7. If no separate volatile sample is supplied by the client, the integrity of the data may be compromised if the laboratory is required to create a sub-sample from the bulk sample -similarly, if a headspace or sediment is present in the volatile sample. This will be flagged up as an invalid VOC on the test schedule or recorded on the log sheet.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. A table containing the date of analysis for each parameter is not routinely included with the report, but is available upon request.

12. Results relate only to the items tested

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 14).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. Our MCERTS accreditation for PAHs by GCMS applies to all product types apart from Kerosene, where naphthalene only is not
accredited.

19. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

20. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

21. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

22. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

23. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials -whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute themajor part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

24. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C4 -C10 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

SOLID MATRICES EXTRACTION SUMMARY

ANALYSIS	D/C OR WET	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
SOLVENT EXTRACTABLE MATTER	D&C	DCM	SOXTHERM	GRAVIMETRIC
CYCLOHEXANE EXT. MATTER	D&C	CYCLOHEXANE	SOXTHERM	GRAVIMETRIC
THIN LAYER CHROMATOGRAPHY	D&C	DCM	SOXTHERM	IATROSCAN
ELEMENTAL SULPHUR	D&C	DCM	SOXTHERM	HPLC
PHENOLS BY GCMS	WET	DCM	SOXTHERM	GC-MS
HERBICIDES	D&C	HEXANE/ACETONE	SOXTHERM	GC-MS
PESTICIDES	D&C	HEXANE/ACETONE	SOXTHERM	GC-MS
EPH (DRO)	D&C	HEXANE/ACETONE	END OVER END	GC-FID
EPH (MIN OIL)	D&C	HEXANE/ACETONE	END OVER END	GC-FID
EPH (CLEANED UP)	D&C	HEXANE/ACETONE	END OVER END	GC-FID
EPH CWG BY GC	D&C	HEXANE/ACETONE	END OVER END	GC-FID
PCB TOT / PCB CON	D&C	HEXANE/ACETONE	END OVER END	GC-MS
POLYAROMATIC HYDROCARBONS (MS)	WET	HEXANE/ACETONE	MICROWAVE TM218.	GC-MS
C8-C40 (C6-C40) EZ FLASH	WET	HEXANE/ACETONE	SHAKER	GC-EZ
POLYAROMATIC HYDROCARBONS RAPID GC	WET	HEXANE/ACETONE	SHAKER	GC-EZ
SEMI VOLATILE ORGANIC COMPOUNDS	WET	DCM/ACETONE	SONICATE	GC-MS

LIQUID MATRICES EXTRACTION SUMMARY

ANALYSIS	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
PAH MS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
EPH	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
EPH CWG	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
MINERAL OIL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
PCB 7 CONGENERS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
PCB TOTAL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
SVOC	DCM	LIQUID/LIQUID SHAKE	GC MS
FREE SULPHUR	DCM	SOLID PHASE EXTRACTION	HPLC
PEST OCP/OPP	DCM	LIQUID/LIQUID SHAKE	GC MS
TRIAZINE HERBS	DCM	LIQUID/LIQUID SHAKE	GC MS
PHENOLS MS	DCM	SOLID PHASE EXTRACTION	GC MS
TPH by INFRARED (IR)	TCE	LIQUID/LIQUID SHAKE	HPLC
MINERAL OIL by IR	TCE	LIQUID/LIQUID SHAKE	HPLC
GLYCOLS	NONE	DIRECT INJECTION	GC MS

Identification of Asbestos in Bulk Materials

The results for asbestos identification for soil samples are obtained from possible Asbestos Containing Material, removed during the 'Screening of soils for Asbestos Containing Materials', which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -
Trace -Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in MDHS 100.

The identification of asbestos containing materials falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Last Updated : 2010/09/08

SDG:	140211-13	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303721
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before presevation was performed
§	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

ALcontrol Laboratories

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CWM Environmental Ltd
Nantyclaws Landfill Site
Llanddarg Road
Carmarthen
Carmarthenshire
SA32 8BG

Attention: Mike Lewis

CERTIFICATE OF ANALYSIS

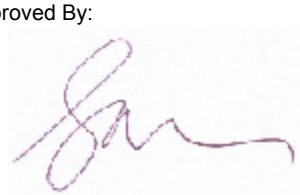
Date:	27 February 2015
Customer:	H_CWMENV_NAN
Sample Delivery Group (SDG):	140213-80
Your Reference:	
Location:	Phase 2-3
Report No:	303715

We received 12 samples on Thursday February 13, 2014 and 12 of these samples were scheduled for analysis which was completed on Monday February 24, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:



Sonia McWhan

Operations Manager

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Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No.

CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
8838325	BH 3/4			11/02/2014
8838329	BH 5/2			11/02/2014
8838321	BH 208			11/02/2014
8838328	NACW203			11/02/2014
8838326	NACW205			11/02/2014
8838314	NACW212			11/02/2014
8838320	NACW227			11/02/2014
8838312	NACW228			11/02/2014
8838315	UD 1			11/02/2014
8838316	UD 3			11/02/2014
8838323	UD 4			11/02/2014
8838324	UD 5			11/02/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
8838325	BH 3/4			1l Glass bottle (ALE)
				1lplastic (ALE221)
				H2SO4 (ALE244)
				NaOH (ALE245)
				Vial (ALE297)
8838329	BH 5/2			1l Glass bottle (ALE)
				1lplastic (ALE221)
				H2SO4 (ALE244)
				NaOH (ALE245)
				Vial (ALE297)
8838321	BH 208			1l Glass bottle (ALE)
				1lplastic (ALE221)
				H2SO4 (ALE244)
				NaOH (ALE245)
				Vial (ALE297)
8838328	NACW203			1l Glass bottle (ALE)
				1lplastic (ALE221)
				H2SO4 (ALE244)
				NaOH (ALE245)
				Vial (ALE297)
8838326	NACW205			1l Glass bottle (ALE)
				1lplastic (ALE221)
				H2SO4 (ALE244)
				NaOH (ALE245)
				Vial (ALE297)
8838314	NACW212			1l Glass bottle (ALE)
				1lplastic (ALE221)
				H2SO4 (ALE244)
				NaOH (ALE245)
				Vial (ALE297)
8838320	NACW227			1l Glass bottle (ALE)
				1lplastic (ALE221)
				H2SO4 (ALE244)
				NaOH (ALE245)
				Vial (ALE297)
8838312	NACW228			1l Glass bottle (ALE)
				1lplastic (ALE221)
				H2SO4 (ALE244)
				NaOH (ALE245)
				Vial (ALE297)

| | | | | |

CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			8838315	UD 1			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
			8838316	UD 3			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
			8838323	UD 4			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
			8838324	UD 5			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
Acid Herbicides by LCQQQ (aq)	All	NDPs: 0 Tests: 11	X				X								X				
Alkalinity as CaCO3	All	NDPs: 0 Tests: 12		X				X				X				X			
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 12			X				X				X				X		
Anions by Kone (w)	All	NDPs: 0 Tests: 12		X				X				X				X			
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 12		X				X				X				X			
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 12		X				X				X				X			
EPH (DRO) (C10-C40) Aqueous (W)	All	NDPs: 0 Tests: 12	X				X				X				X				
GRO by GC-FID (W)	All	NDPs: 0 Tests: 12				X				X				X					X
Metals by iCap-OES Dissolved (W)	All	NDPs: 0 Tests: 12		X				X				X				X			
Nitrite by Kone (w)	All	NDPs: 0 Tests: 12			X				X				X					X	
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 12	X				X				X				X				
Total EPH (aq)	All	NDPs: 0 Tests: 12	X				X				X				X				
VOC MS (W)	All	NDPs: 0 Tests: 12				X				X				X					X

CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH 3/4	BH 5/2	BH 208	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014
			SDG Ref	140213-80	140213-80	140213-80	140213-80	140213-80	140213-80
			Lab Sample No.(s)	8838325	8838329	8838321	8838328	8838326	8838314
			AGS Reference						
Alkalinity, Total as CaCO3	<2 mg/l	TM043		155 #	225 #	235 #	235 #	225 #	50 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	<0.2 #	<0.2 #	<0.2 #	0.39 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.28 #	0.439 #	0.453 #	0.467 #	0.455 #	0.187 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		2.12 #	2.56 #	2.62 #	2.85 #	2.55 #	1.18 #
Copper (diss.filt)	<0.85 µg/l	TM152		<0.85 #	<0.85 #	<0.85 #	<0.85 #	<0.85 #	8.08 #
Lead (diss.filt)	<0.02 µg/l	TM152		0.176 #	<0.02 #	<0.02 #	<0.02 #	0.03 #	<0.02 #
Manganese (diss.filt)	<0.04 µg/l	TM152		2040 #	0.259 #	0.301 #	0.273 #	0.141 #	0.653 #
Nickel (diss.filt)	<0.15 µg/l	TM152		1.31 #	1.1 #	1.14 #	1.18 #	1.05 #	0.822 #
Zinc (diss.filt)	<0.41 µg/l	TM152		1.01 #	1.29 #	1.39 #	1.78 #	1.73 #	7.43 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		<46 #	<46 #	<46 #	<46 #	<46 #	<46 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		<100	<100	<100	<100	<100	<100
Nitrite as NO2	<0.05 mg/l	TM184		<0.05 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #
Sulphate	<2 mg/l	TM184		<2 #	15.2 #	7.8 #	11 #	12 #	9.3 #
Chloride	<2 mg/l	TM184		11.8 #	19 #	15.2 #	20.3 #	18.9 #	18.6 #
Nitrate as NO3	<0.3 mg/l	TM184		<0.3 #	9.72 #	10.9 #	7.16 #	9.02 #	15.1 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		<0.1 #	2.2 #	2.47 #	1.62 #	2.04 #	3.41 #
Calcium (diss.filt)	<0.012 mg/l	TM228		48.3 #	78.1 #	78.3 #	86.2 #	80.4 #	23.8 #
Sodium (diss.filt)	<0.076 mg/l	TM228		7.01 #	10.4 #	11 #	9.19 #	9.5 #	7.77 #
Magnesium (diss.filt)	<0.036 mg/l	TM228		4.14 #	8.3 #	8.12 #	7.1 #	7.17 #	2.66 #
Potassium (diss.filt)	<1 mg/l	TM228		<1 #	1.37 #	1.26 #	1.1 #	1.08 #	2.09 #
Iron (diss.filt)	<0.019 mg/l	TM228		1.91 #	<0.019 #	<0.019 #	<0.019 #	<0.019 #	<0.019 #
MCPP (Mecoprop)	<0.04 µg/l	TM324		<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW227	NACW228	UD 1	UD 3	UD 4	UD 5
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014
			SDG Ref	140213-80	140213-80	140213-80	140213-80	140213-80	140213-80
			Lab Sample No.(s)	8838320	8838312	8838315	8838316	8838323	8838324
			AGS Reference						
Alkalinity, Total as CaCO3	<2 mg/l	TM043		24.5 #	70 #	230 #	185 #	180 #	43 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	0.7 #	<0.2 #	<0.2 #	1.84 #	0.547 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.168 #	0.271 #	0.469 #	0.368 #	0.459 #	0.171 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		1.2 #	1.28 #	2.79 #	2.97 #	2.31 #	0.961 #
Copper (diss.filt)	<0.85 µg/l	TM152		2.26 #	0.898 #	<0.85 #	<0.85 #	4.14 #	1.05 #
Lead (diss.filt)	<0.02 µg/l	TM152		0.036 #	0.101 #	<0.02 #	0.083 #	0.444 #	0.076 #
Manganese (diss.filt)	<0.04 µg/l	TM152		114 #	140 #	3.69 #	166 #	48.8 #	17.5 #
Nickel (diss.filt)	<0.15 µg/l	TM152		4.69 #	1.91 #	1.26 #	1.28 #	2.61 #	0.674 #
Zinc (diss.filt)	<0.41 µg/l	TM152		9.18 #	1.58 #	1.54 #	3 #	3.76 #	1.13 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		<46 #	<46 #	<46 #	<46 #	157 #	<46 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		<100	<100	<100	<100	157	<100
Nitrite as NO2	<0.05 mg/l	TM184		<0.05 #	<0.05 #	<0.05 #	<0.05 #	0.122 #	<0.05 #
Sulphate	<2 mg/l	TM184		24.2 #	37.9 #	11.5 #	8.9 #	26.2 #	2 #
Chloride	<2 mg/l	TM184		22.6 #	21.4 #	26.5 #	17.2 #	44.3 #	24.6 #
Nitrate as NO3	<0.3 mg/l	TM184		2.33 #	4.21 #	7.78 #	6.71 #	10.9 #	4.14 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		0.531 #	0.955 #	1.76 #	1.52 #	2.49 #	0.94 #
Calcium (diss.filt)	<0.012 mg/l	TM228		14.9 #	34.4 #	78.8 #	61.1 #	51.1 #	19.3 #
Sodium (diss.filt)	<0.076 mg/l	TM228		10.9 #	9.62 #	10.9 #	11.9 #	20.9 #	11.1 #
Magnesium (diss.filt)	<0.036 mg/l	TM228		4.04 #	3.93 #	8.89 #	5.93 #	4.76 #	1.93 #
Potassium (diss.filt)	<1 mg/l	TM228		<1 #	7.61 #	1.27 #	3.1 #	27.3 #	1.19 #
Iron (diss.filt)	<0.019 mg/l	TM228		<0.019 #	0.15 #	<0.019 #	<0.019 #	0.111 #	0.108 #
MCPP (Mecoprop)	<0.04 µg/l	TM324		<0.04	0.041	<0.04	<0.04		<0.04

CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH 3/4	BH 5/2	BH 208	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014
			SDG Ref	140213-80	140213-80	140213-80	140213-80	140213-80	140213-80
			Lab Sample No.(s)	8838325	8838329	8838321	8838328	8838326	8838314
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		<7 #	<7 #	<7 #	<7 #	<7 #	<7 #
Toluene	<4 µg/l	TM245		<4 #	<4 #	<4 #	<4 #	<4 #	<4 #
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	<8 #	<8 #	<8 #	<8 #
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	<28	<28	<28	<28
EPH (C6-C10)	<100 µg/l	TM245		<100	<100	<100	<100	<100	<100

CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW227	NACW228	UD 1	UD 3	UD 4	UD 5
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014
			SDG Ref	140213-80	140213-80	140213-80	140213-80	140213-80	140213-80
			Lab Sample No.(s)	8838320	8838312	8838315	8838316	8838323	8838324
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		<7 #	<7 #	<7 #	<7 #	<7 #	<7 #
Toluene	<4 µg/l	TM245		<4 #	<4 #	<4 #	<4 #	<4 #	<4 #
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	<8 #	<8 #	<8 #	<8 #
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	<28	<28	<28	<28
EPH (C6-C10)	<100 µg/l	TM245		<100	<100	<100	<100	<100	<100

CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH 3/4	BH 5/2	BH 208	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014
			SDG Ref	140213-80	140213-80	140213-80	140213-80	140213-80	140213-80
			Lab Sample No.(s)	8838325	8838329	8838321	8838328	8838326	8838314
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH 3/4	BH 5/2	BH 208	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014
			SDG Ref	140213-80	140213-80	140213-80	140213-80	140213-80	140213-80
			Lab Sample No.(s)	8838325	8838329	8838321	8838328	8838326	8838314
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbazole (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chrysene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Fluorene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isophorone (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenanthrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW227	NACW228	UD 1	UD 3	UD 4	UD 5
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014
			SDG Ref	140213-80	140213-80	140213-80	140213-80	140213-80	140213-80
			Lab Sample No.(s)	8838320	8838312	8838315	8838316	8838323	8838324
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW227	NACW228	UD 1	UD 3	UD 4	UD 5
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014
			SDG Ref	140213-80	140213-80	140213-80	140213-80	140213-80	140213-80
			Lab Sample No.(s)	8838320	8838312	8838315	8838316	8838323	8838324
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbazole (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chrysene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	1.13 #	<1 #	<1 #	<1 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Fluorene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isophorone (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenanthrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH 3/4	BH 5/2	BH 208	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014
			SDG Ref	140213-80	140213-80	140213-80	140213-80	140213-80	140213-80
			Lab Sample No.(s)	8838325	8838329	8838321	8838328	8838326	8838314
			AGS Reference						
Dibromofluoromethane**	%	TM208		117	110	113	121	113	110
Toluene-d8**	%	TM208		100	99	99.7	105	100	98.9
4-Bromofluorobenzene**	%	TM208		95.7	97.3	98.3	107	98.9	97.8
Dichlorodifluoromethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	4.95 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Benzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	5.44 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH 3/4	BH 5/2	BH 208	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014
			SDG Ref	140213-80	140213-80	140213-80	140213-80	140213-80	140213-80
			Lab Sample No.(s)	8838325	8838329	8838321	8838328	8838326	8838314
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	3.46 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH 3/4	BH 5/2	BH 208	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014
			SDG Ref	140213-80	140213-80	140213-80	140213-80	140213-80	140213-80
			Lab Sample No.(s)	8838325	8838329	8838321	8838328	8838326	8838314
			AGS Reference						
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW227	NACW228	UD 1	UD 3	UD 4	UD 5
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014
			SDG Ref	140213-80	140213-80	140213-80	140213-80	140213-80	140213-80
			Lab Sample No.(s)	8838320	8838312	8838315	8838316	8838323	8838324
			AGS Reference						
Dibromofluoromethane**	%	TM208		112	110	111	113	113	113
Toluene-d8**	%	TM208		99.9	99.8	99.6	99.3	99.8	99.4
4-Bromofluorobenzene**	%	TM208		96.5	97.5	95.6	94.5	96.7	98.9
Dichlorodifluoromethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		3.39 #	3.55 #	<1 #	<1 #	<1 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Benzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		4.08 #	3.2 #	<1 #	<1 #	<1 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW227	NACW228	UD 1	UD 3	UD 4	UD 5
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014
			SDG Ref	140213-80	140213-80	140213-80	140213-80	140213-80	140213-80
			Lab Sample No.(s)	8838320	8838312	8838315	8838316	8838323	8838324
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		3.15 #	1.78 #	<1 #	<1 #	<1 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW227	NACW228	UD 1	UD 3	UD 4	UD 5
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014	11/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014
			SDG Ref	140213-80	140213-80	140213-80	140213-80	140213-80	140213-80
			Lab Sample No.(s)	8838320	8838312	8838315	8838316	8838323	8838324
			AGS Reference						
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples		
TM061	Method for the Determination of EPH,Massachusetts Dept.of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM120	Method 2510B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part 9:1970	Determination of Electrical Conductivity using a Conductivity Meter		
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS		
TM172	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	EPH in Waters		
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters		
TM228	US EPA Method 6010B	Determination of Major Cations in Water by iCap 6500 Duo ICP-OES		
TM245	By GC-FID	Determination of GRO by Headspace in waters		
TM324		Analysis of Acid Herbicides in Aqueous Sample by LCQQQ		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	8838321	8838325	8838329	8838328	8838326	8838314	8838320	8838312	8838315	8838316
Customer Sample Ref.	BH 208	BH 3/4	BH 5/2	NACW203	NACW205	NACW212	NACW227	NACW228	UD 1	UD 3
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Acid Herbicides by LCQQQ (aq)	24-Feb-2014	24-Feb-2014	24-Feb-2014	24-Feb-2014	24-Feb-2014	24-Feb-2014	24-Feb-2014	24-Feb-2014	24-Feb-2014	24-Feb-2014
Alkalinity as CaCO3	17-Feb-2014	17-Feb-2014	16-Feb-2014	16-Feb-2014	16-Feb-2014	19-Feb-2014	16-Feb-2014	19-Feb-2014	19-Feb-2014	16-Feb-2014
Ammoniacal Nitrogen	17-Feb-2014	17-Feb-2014	17-Feb-2014	17-Feb-2014	17-Feb-2014	19-Feb-2014	17-Feb-2014	19-Feb-2014	19-Feb-2014	17-Feb-2014
Anions by Kone (w)	20-Feb-2014	21-Feb-2014	21-Feb-2014	21-Feb-2014	21-Feb-2014	21-Feb-2014	20-Feb-2014	21-Feb-2014	21-Feb-2014	20-Feb-2014
Conductivity (at 20 deg.C)	17-Feb-2014	17-Feb-2014	17-Feb-2014	17-Feb-2014	17-Feb-2014	19-Feb-2014	17-Feb-2014	19-Feb-2014	19-Feb-2014	17-Feb-2014
Dissolved Metals by ICP-MS	18-Feb-2014	19-Feb-2014	18-Feb-2014	18-Feb-2014	18-Feb-2014	19-Feb-2014	18-Feb-2014	19-Feb-2014	19-Feb-2014	18-Feb-2014
EPH (DRO) (C10-C40) Aqueous (W)	20-Feb-2014	20-Feb-2014	19-Feb-2014	20-Feb-2014	20-Feb-2014	20-Feb-2014	20-Feb-2014	20-Feb-2014	20-Feb-2014	20-Feb-2014
GRO by GC-FID (W)	15-Feb-2014	18-Feb-2014	15-Feb-2014	15-Feb-2014	15-Feb-2014	15-Feb-2014	15-Feb-2014	15-Feb-2014	15-Feb-2014	15-Feb-2014
Metals by iCap-OES Dissolved (W)	18-Feb-2014	18-Feb-2014	18-Feb-2014	18-Feb-2014	18-Feb-2014	20-Feb-2014	18-Feb-2014	20-Feb-2014	20-Feb-2014	18-Feb-2014
Nitrite by Kone (w)	17-Feb-2014	17-Feb-2014	17-Feb-2014	17-Feb-2014	17-Feb-2014	19-Feb-2014	17-Feb-2014	19-Feb-2014	19-Feb-2014	17-Feb-2014
SVOC MS (W) - Aqueous	20-Feb-2014	20-Feb-2014	20-Feb-2014	20-Feb-2014	20-Feb-2014	21-Feb-2014	20-Feb-2014	21-Feb-2014	21-Feb-2014	20-Feb-2014
Total EPH (aq)	21-Feb-2014	21-Feb-2014	21-Feb-2014	21-Feb-2014	21-Feb-2014	21-Feb-2014	21-Feb-2014	21-Feb-2014	21-Feb-2014	21-Feb-2014
VOC MS (W)	17-Feb-2014	17-Feb-2014	17-Feb-2014	18-Feb-2014	17-Feb-2014	17-Feb-2014	17-Feb-2014	17-Feb-2014	17-Feb-2014	17-Feb-2014

Lab Sample No(s)	8838323	8838324
Customer Sample Ref.	UD 4	UD 5
AGS Ref.		
Depth		
Type	LIQUID	LIQUID
Acid Herbicides by LCQQQ (aq)	24-Feb-2014	24-Feb-2014
Alkalinity as CaCO3	17-Feb-2014	17-Feb-2014
Ammoniacal Nitrogen	17-Feb-2014	17-Feb-2014
Anions by Kone (w)	20-Feb-2014	20-Feb-2014
Conductivity (at 20 deg.C)	17-Feb-2014	17-Feb-2014
Dissolved Metals by ICP-MS	18-Feb-2014	18-Feb-2014
EPH (DRO) (C10-C40) Aqueous (W)	20-Feb-2014	20-Feb-2014
GRO by GC-FID (W)	19-Feb-2014	15-Feb-2014
Metals by iCap-OES Dissolved (W)	18-Feb-2014	18-Feb-2014
Nitrite by Kone (w)	17-Feb-2014	17-Feb-2014
SVOC MS (W) - Aqueous	20-Feb-2014	20-Feb-2014
Total EPH (aq)	21-Feb-2014	21-Feb-2014
VOC MS (W)	17-Feb-2014	17-Feb-2014

CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

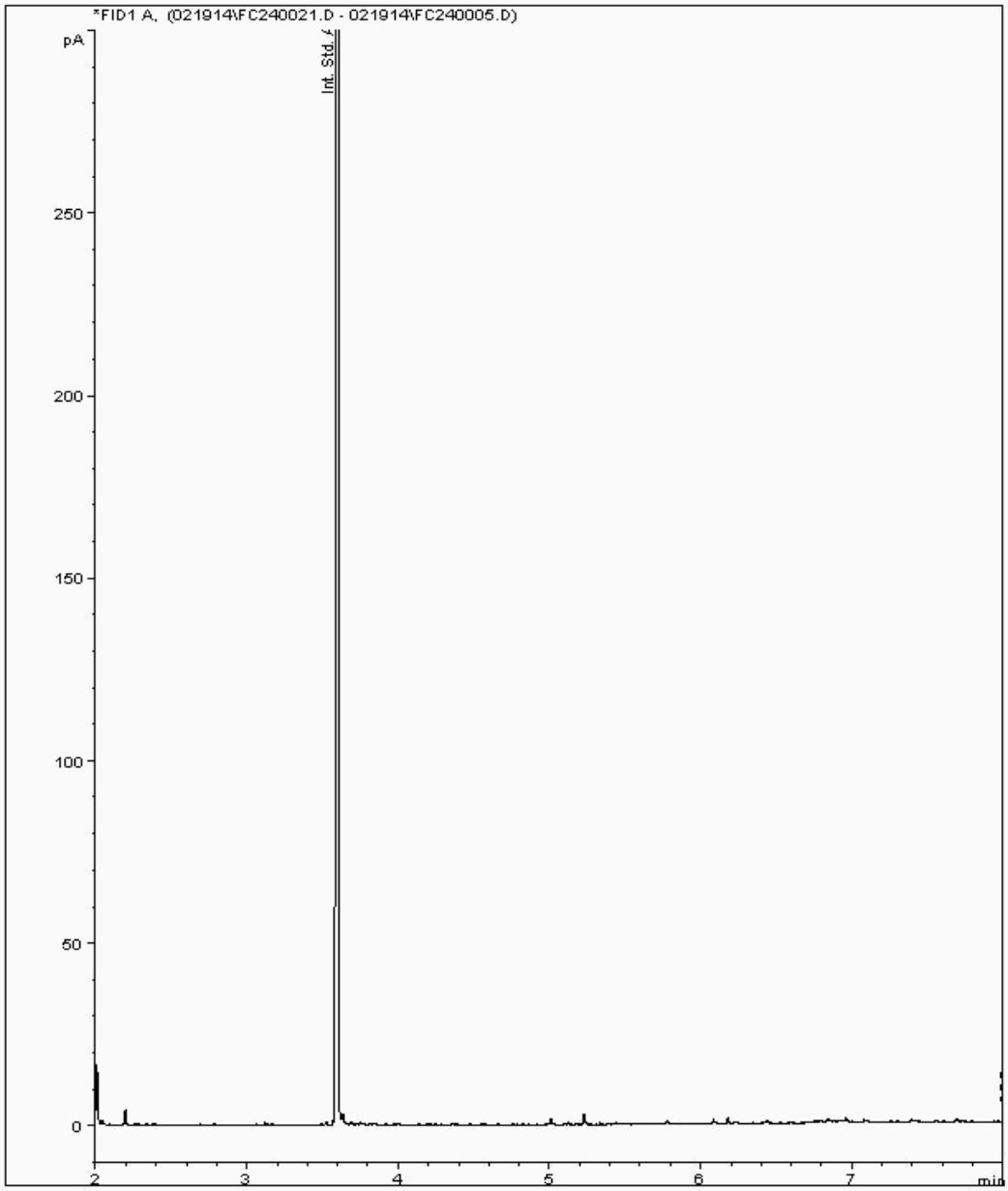
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8842834
Sample ID : NACW203

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8417312-8842834
Date Acquired : 19/02/2014 21:56:02 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

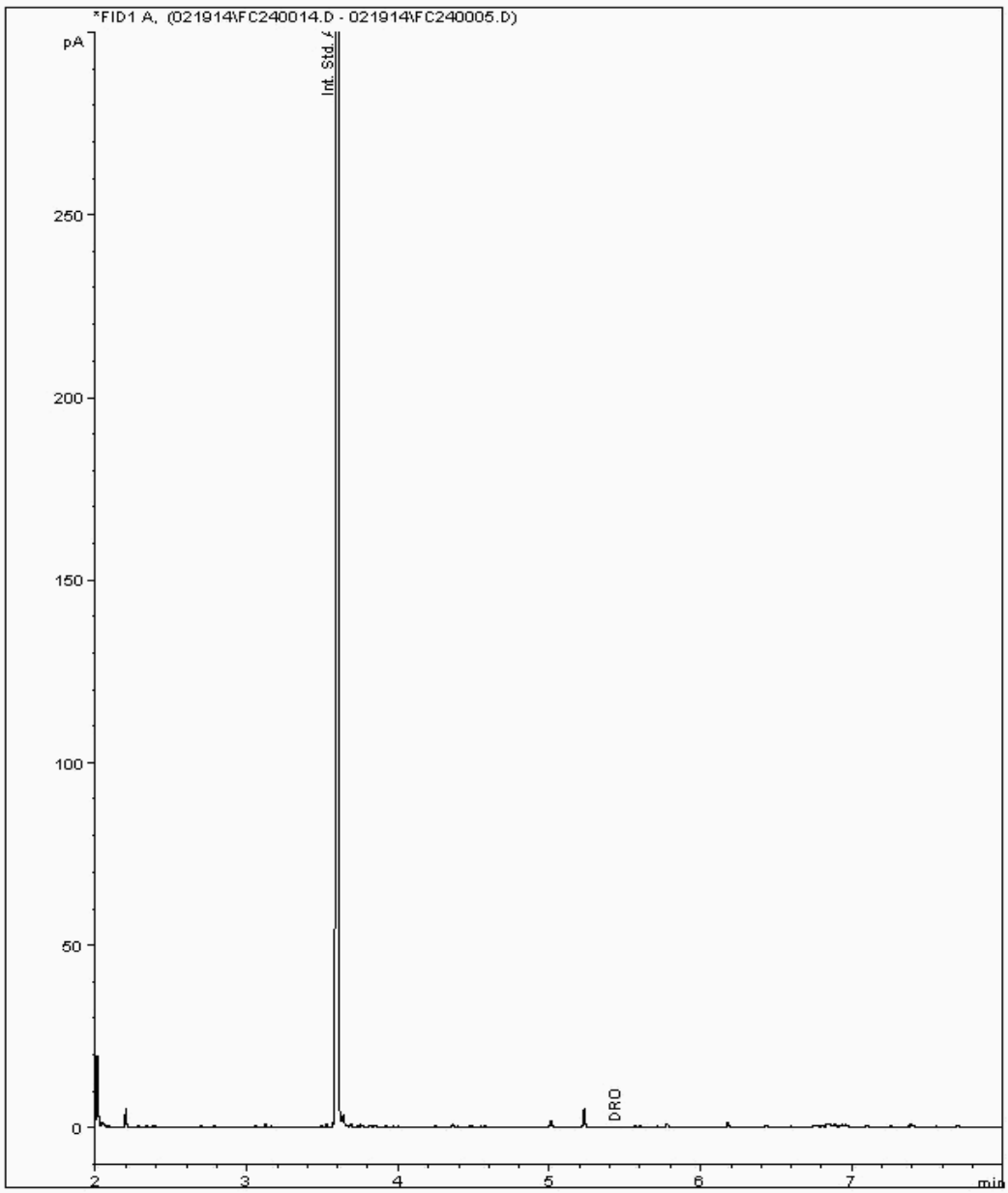
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8842901
Sample ID : NACW205

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8417298-8842901
Date Acquired : 19/02/2014 19:20:13 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

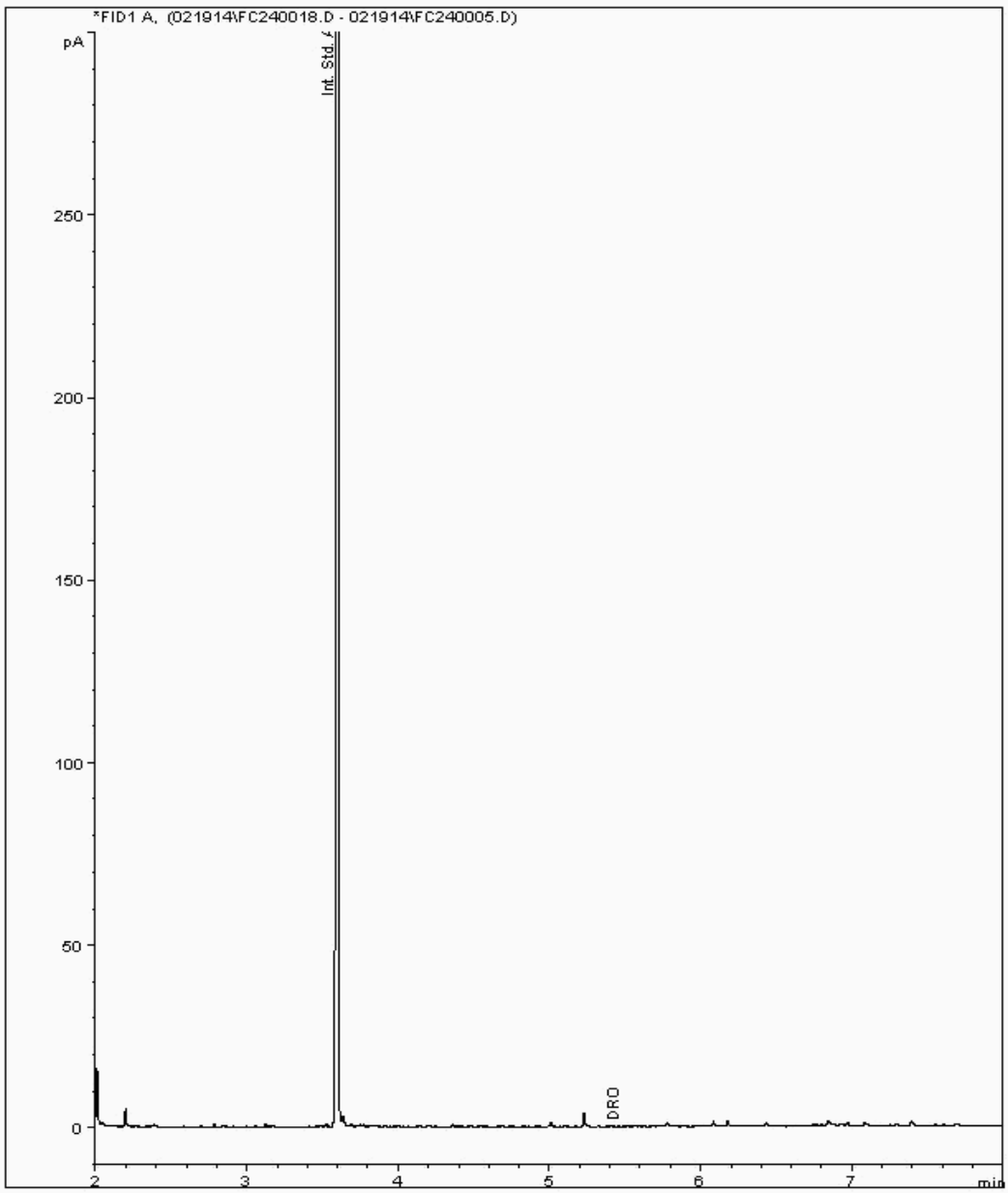
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8845522
Sample ID : BH 3/4

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8417284-8845522
Date Acquired : 19/02/2014 20:49:14 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

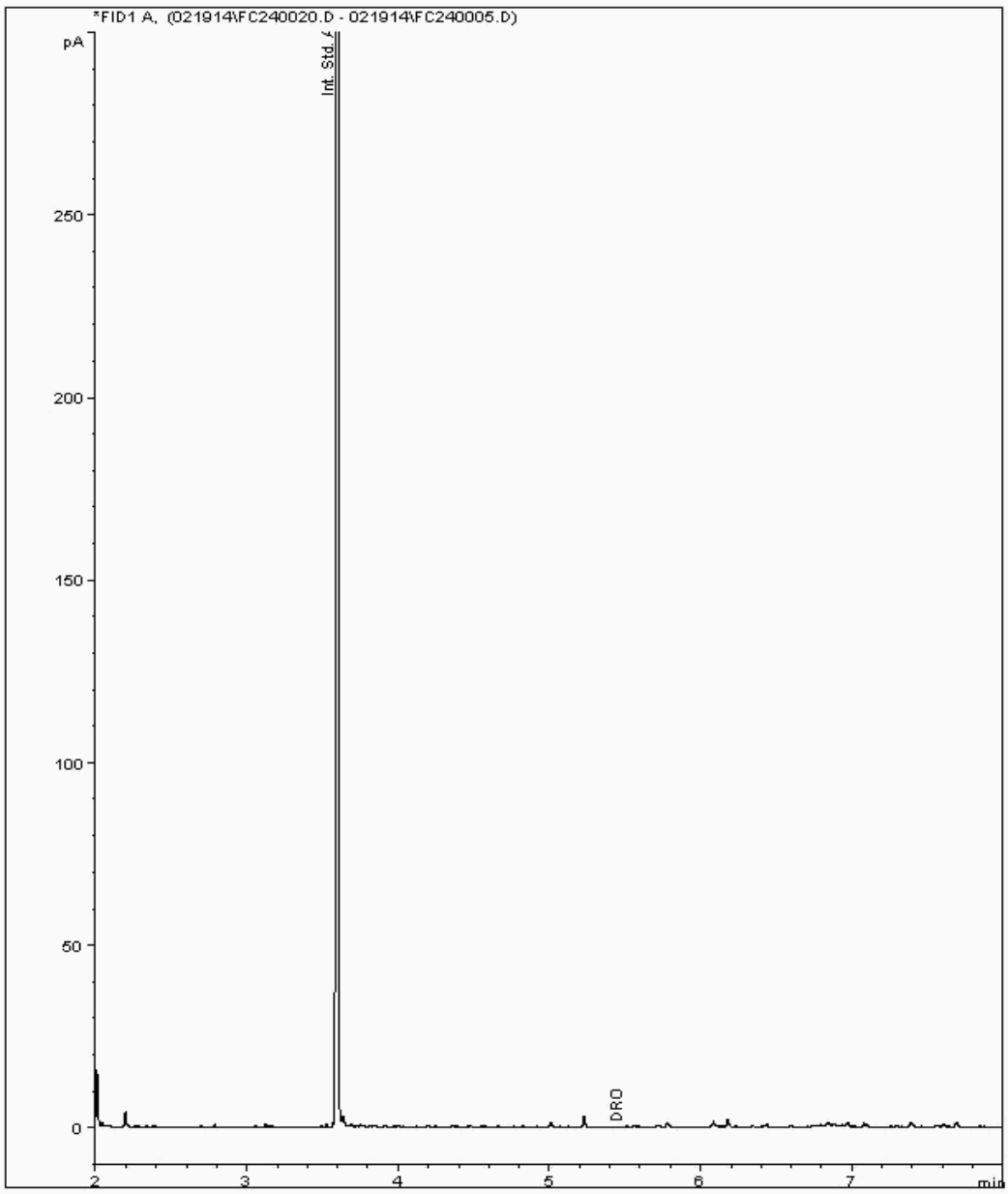
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8845706
Sample ID : UD 5

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8417270-8845706
Date Acquired : 19/02/2014 21:33:45 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

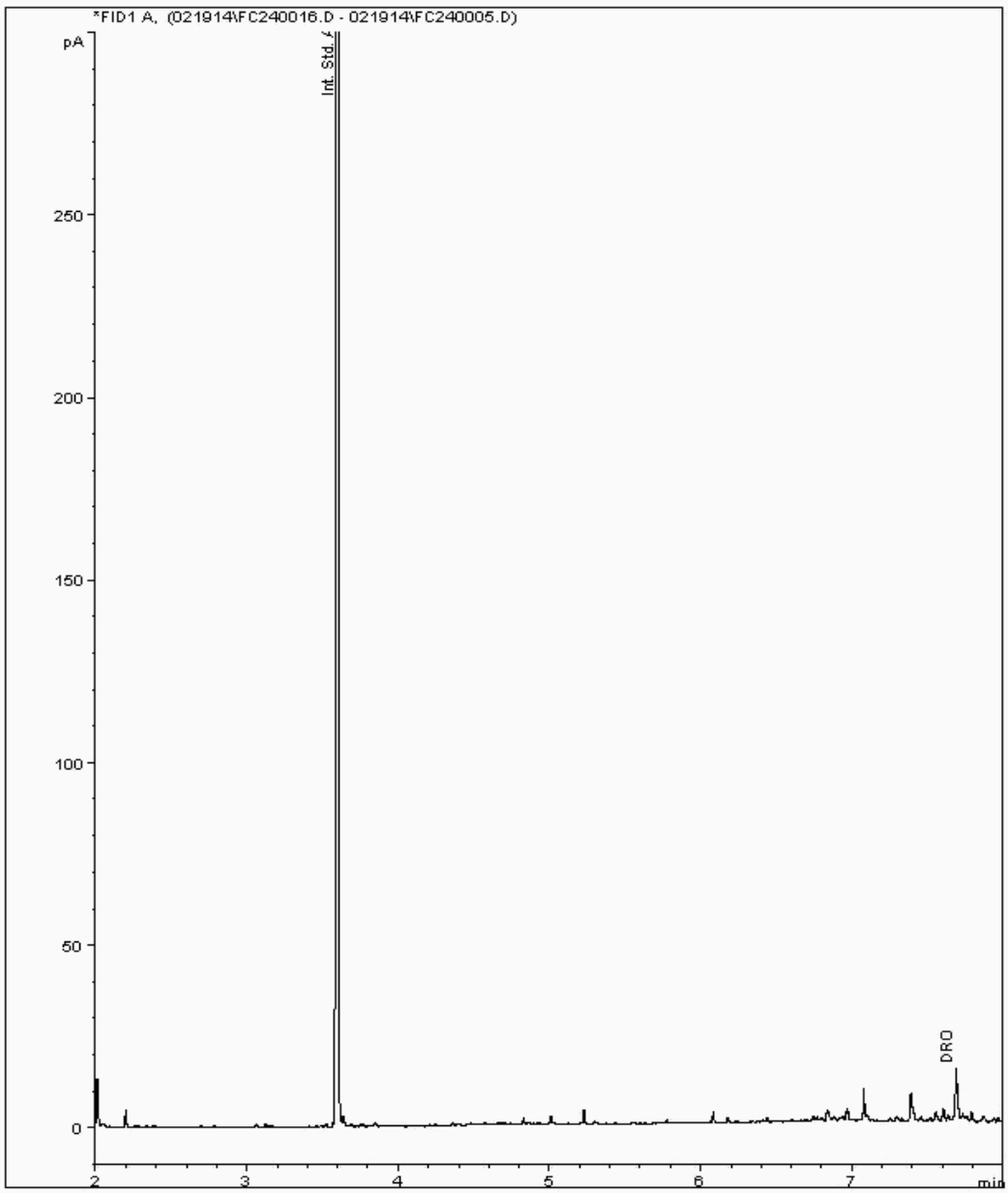
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8845789
Sample ID : UD 4

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8417256-8845789
Date Acquired : 19/02/2014 20:04:48 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

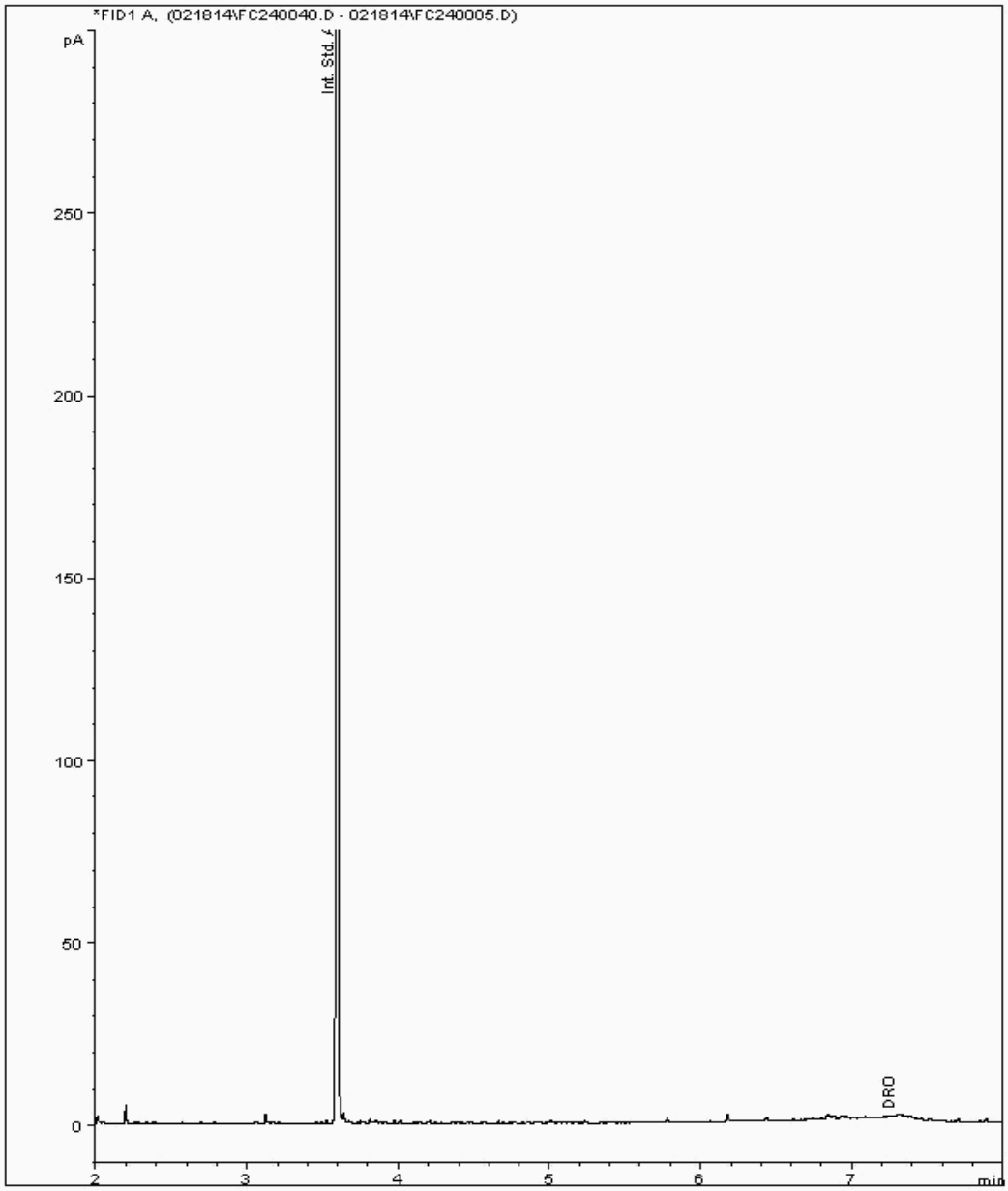
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8846700
Sample ID : BH 5/2

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8417326-8846700
Date Acquired : 19/02/2014 02:56:51 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

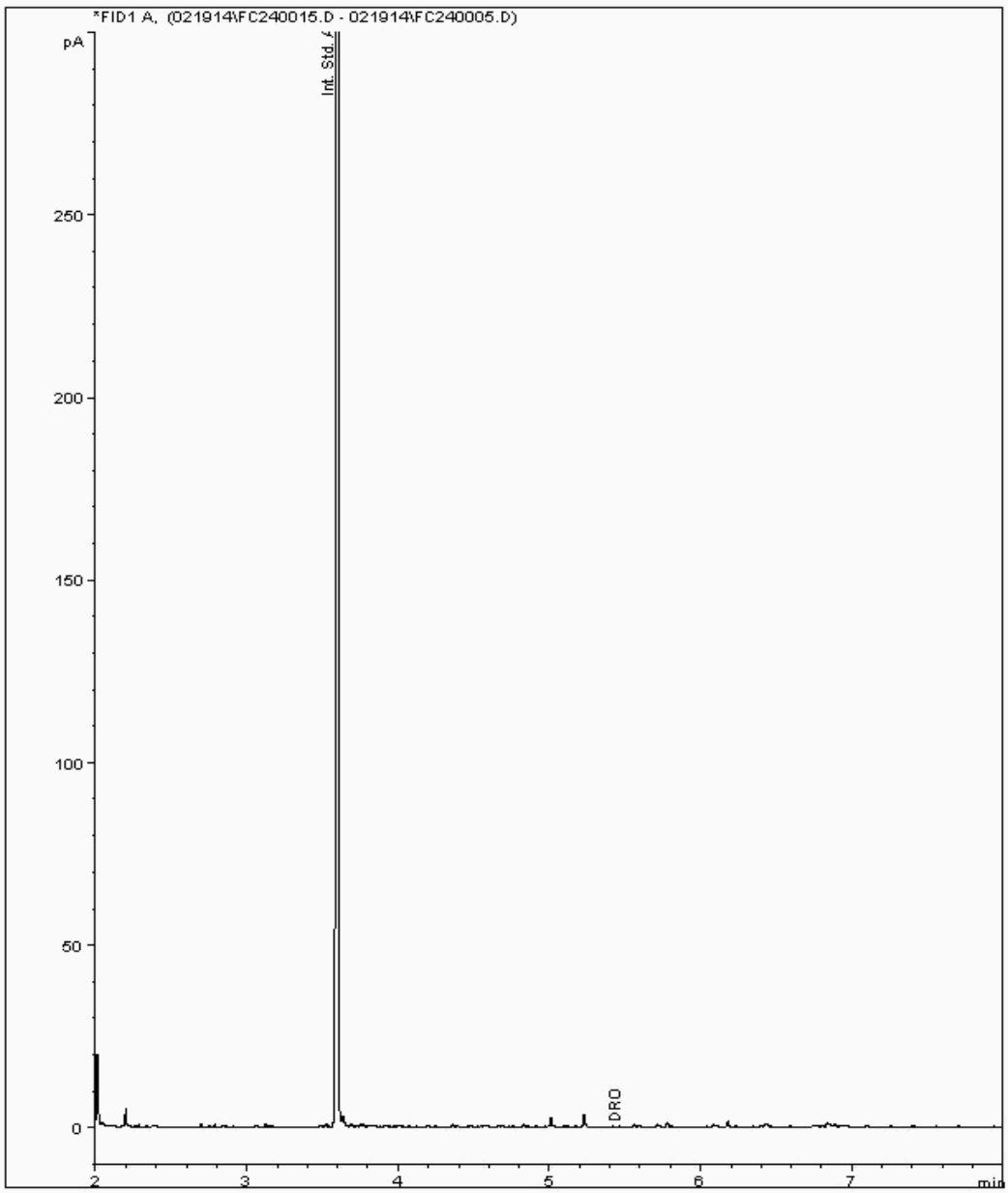
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8846781
Sample ID : NACW227

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8417227-8846781
Date Acquired : 19/02/2014 19:42:31 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

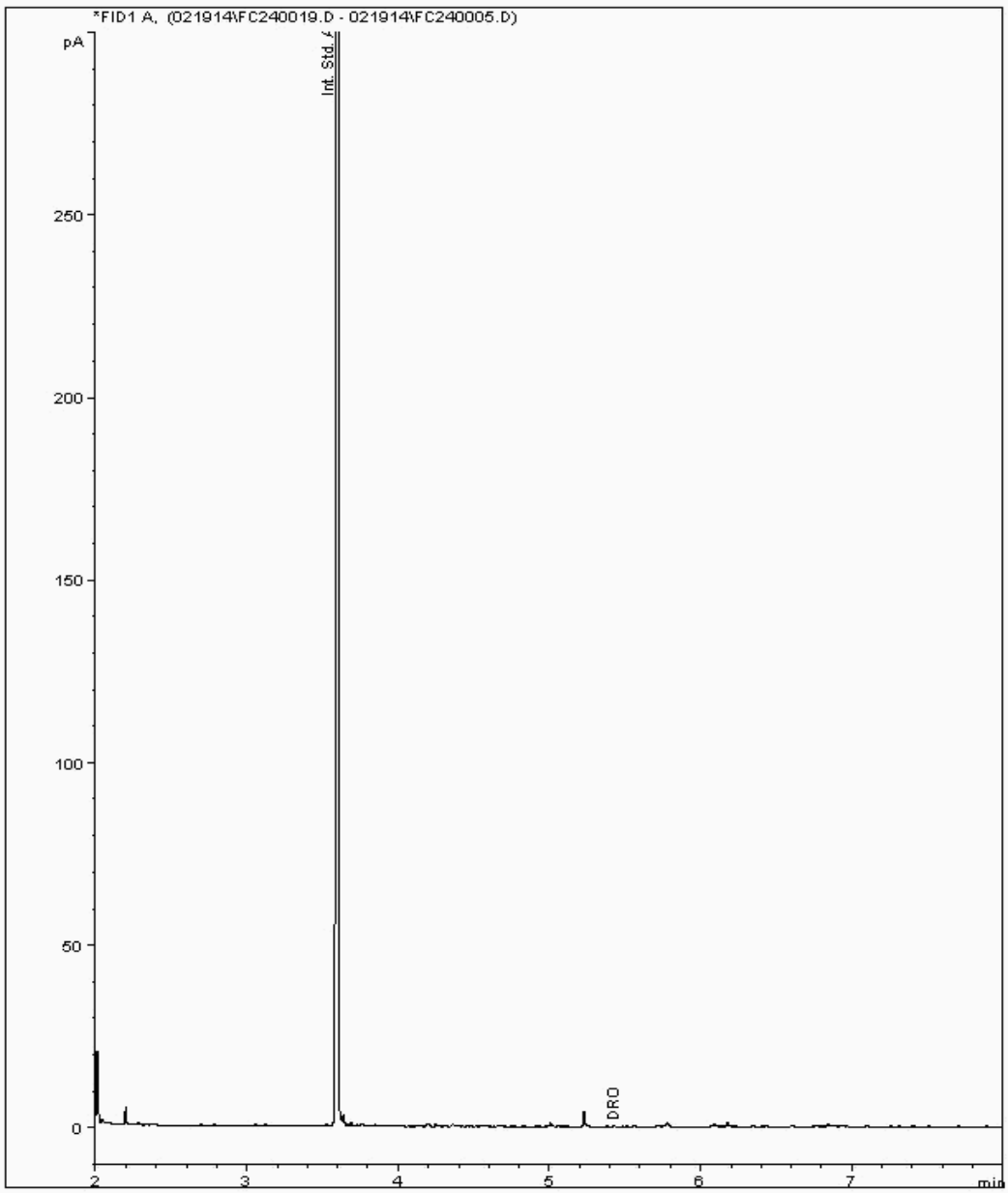
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8846835
Sample ID : BH 208

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8417242-8846835
Date Acquired : 19/02/2014 21:11:35 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

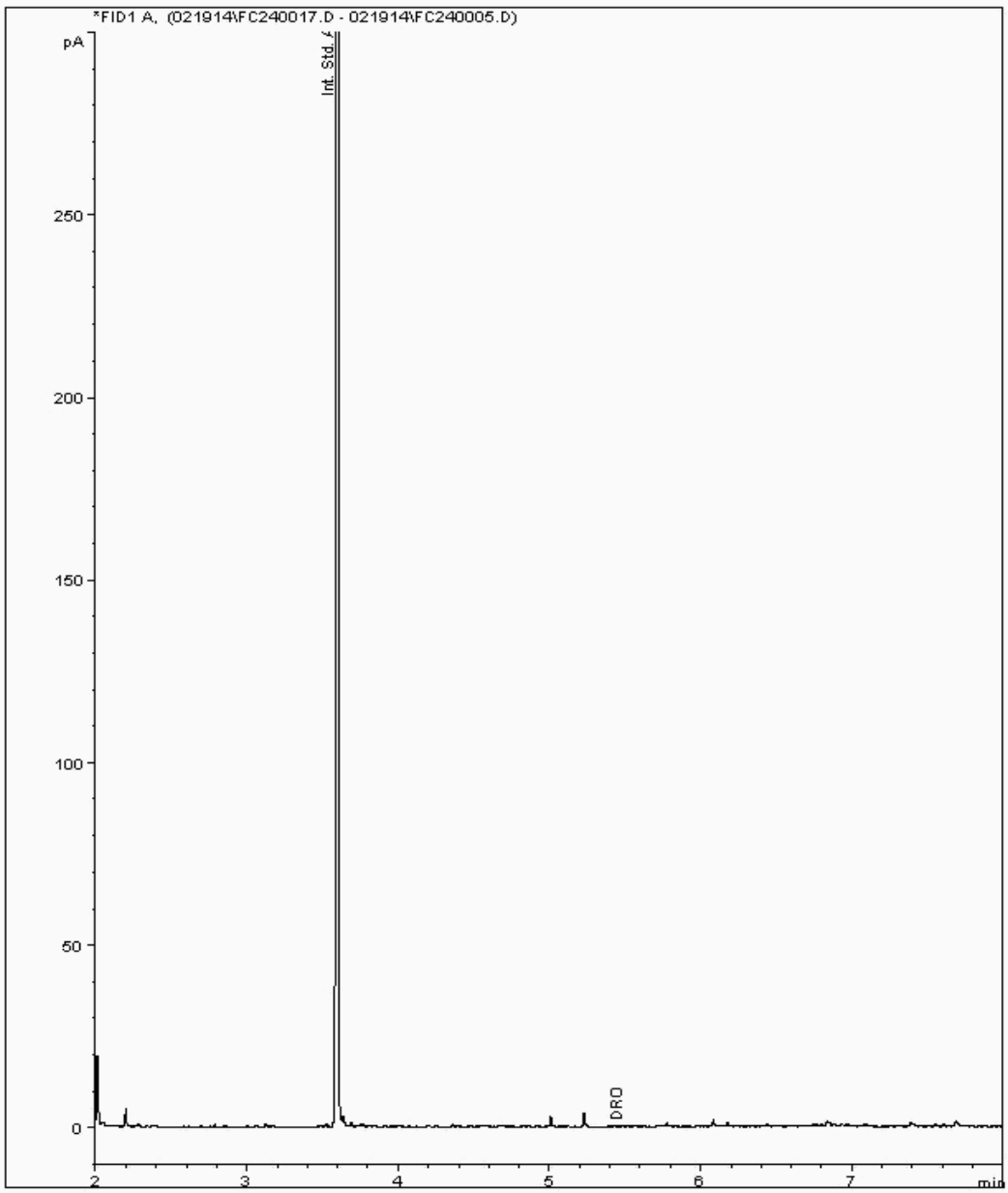
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8846892
Sample ID : UD 3

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8417213-8846892
Date Acquired : 19/02/2014 20:26:59 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

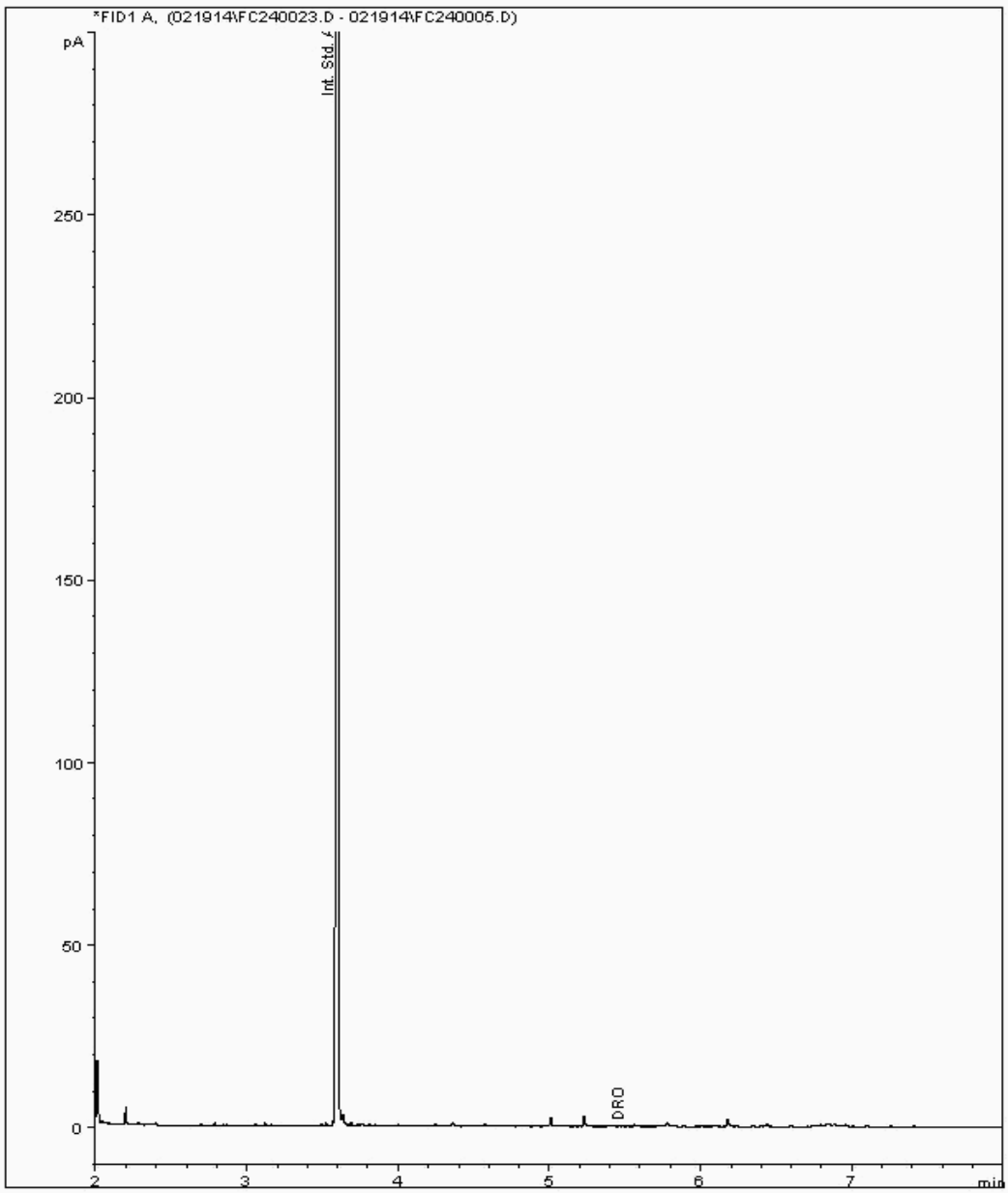
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8862360
Sample ID : UD 1

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8417195-8862360
Date Acquired : 19/02/2014 22:40:54 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

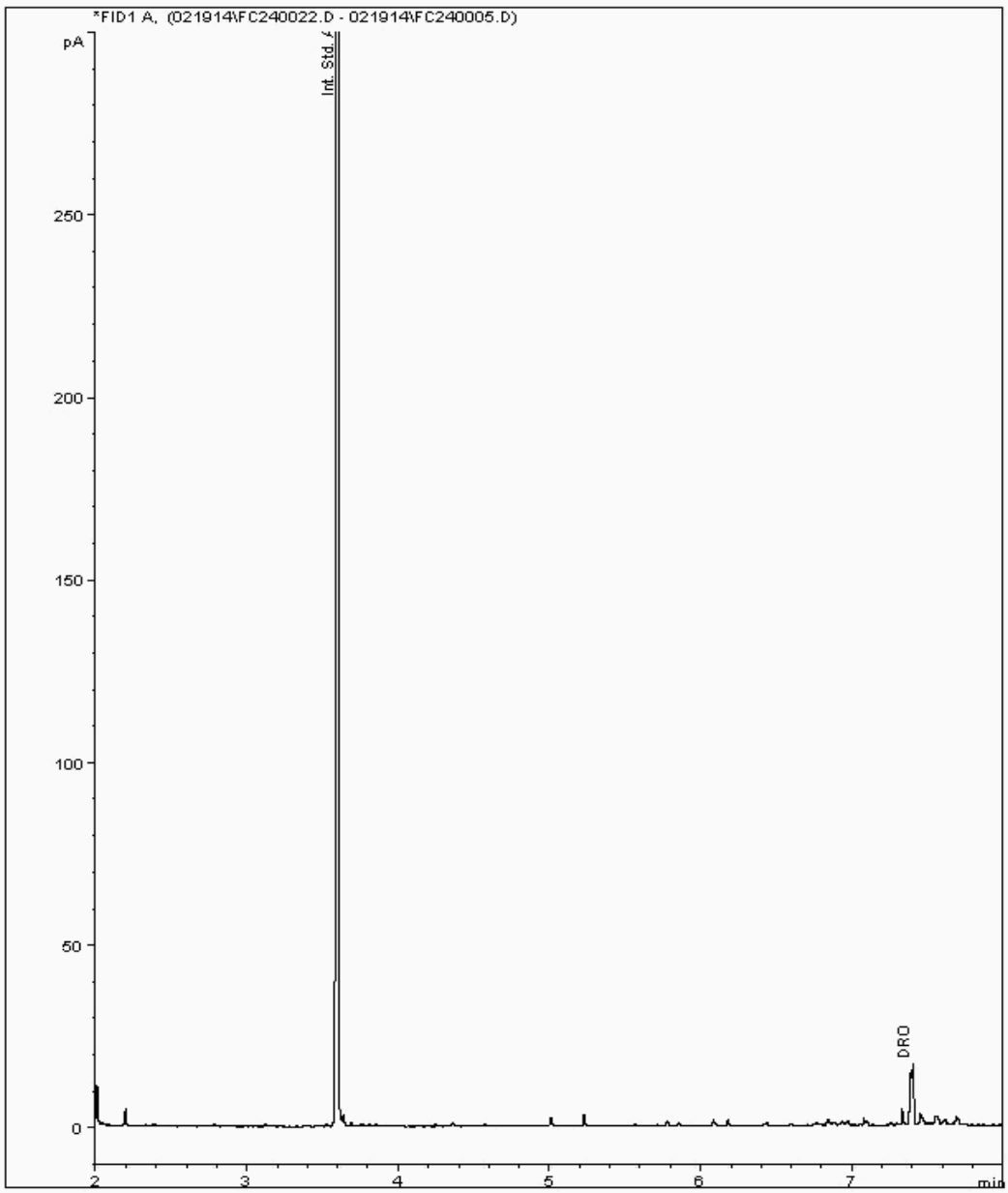
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8862867
Sample ID : NACW228

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8417162-8862867
Date Acquired : 19/02/2014 22:18:30 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

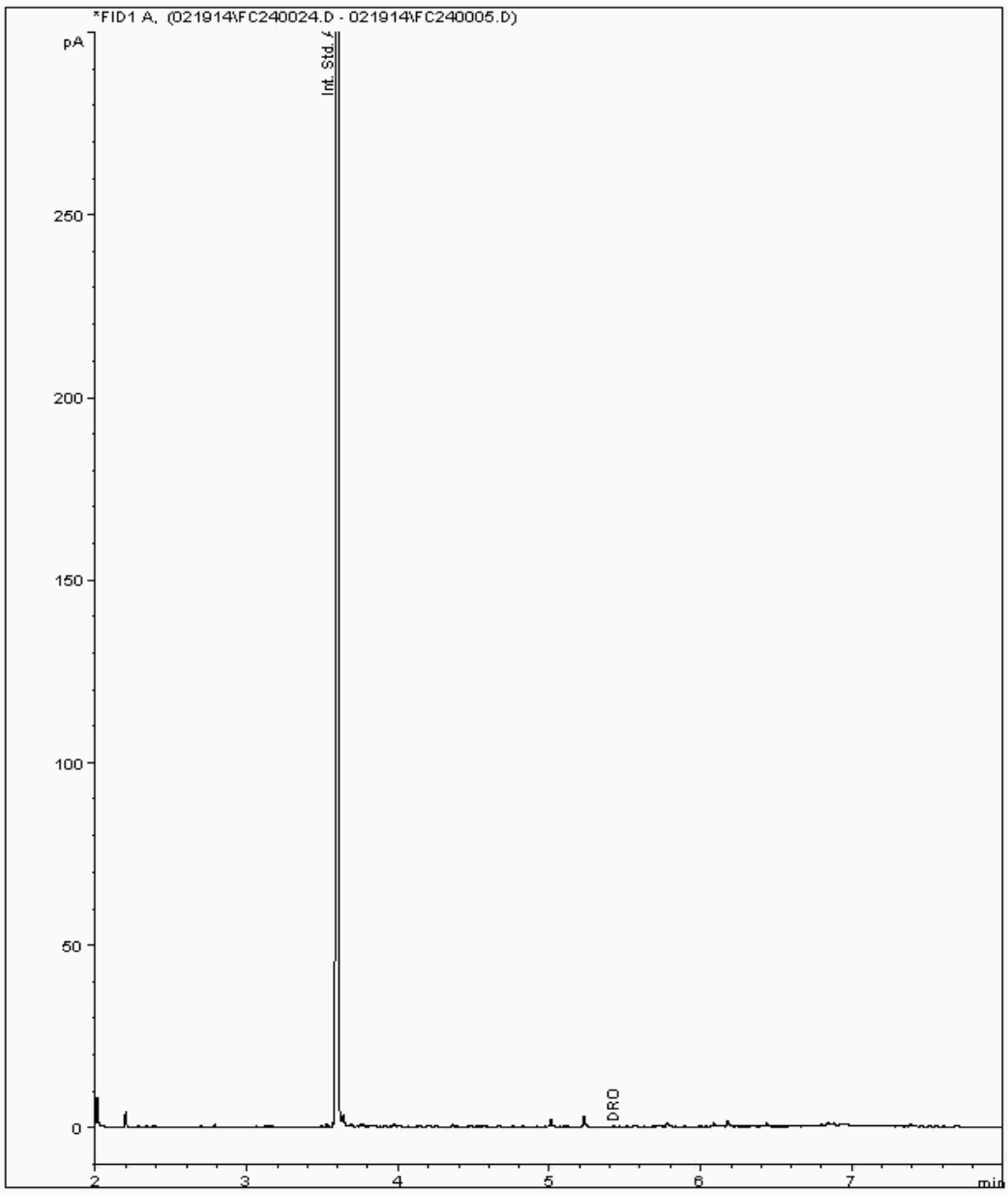
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8862917
Sample ID : NACW212

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8417181-8862917
Date Acquired : 19/02/2014 23:03:22 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

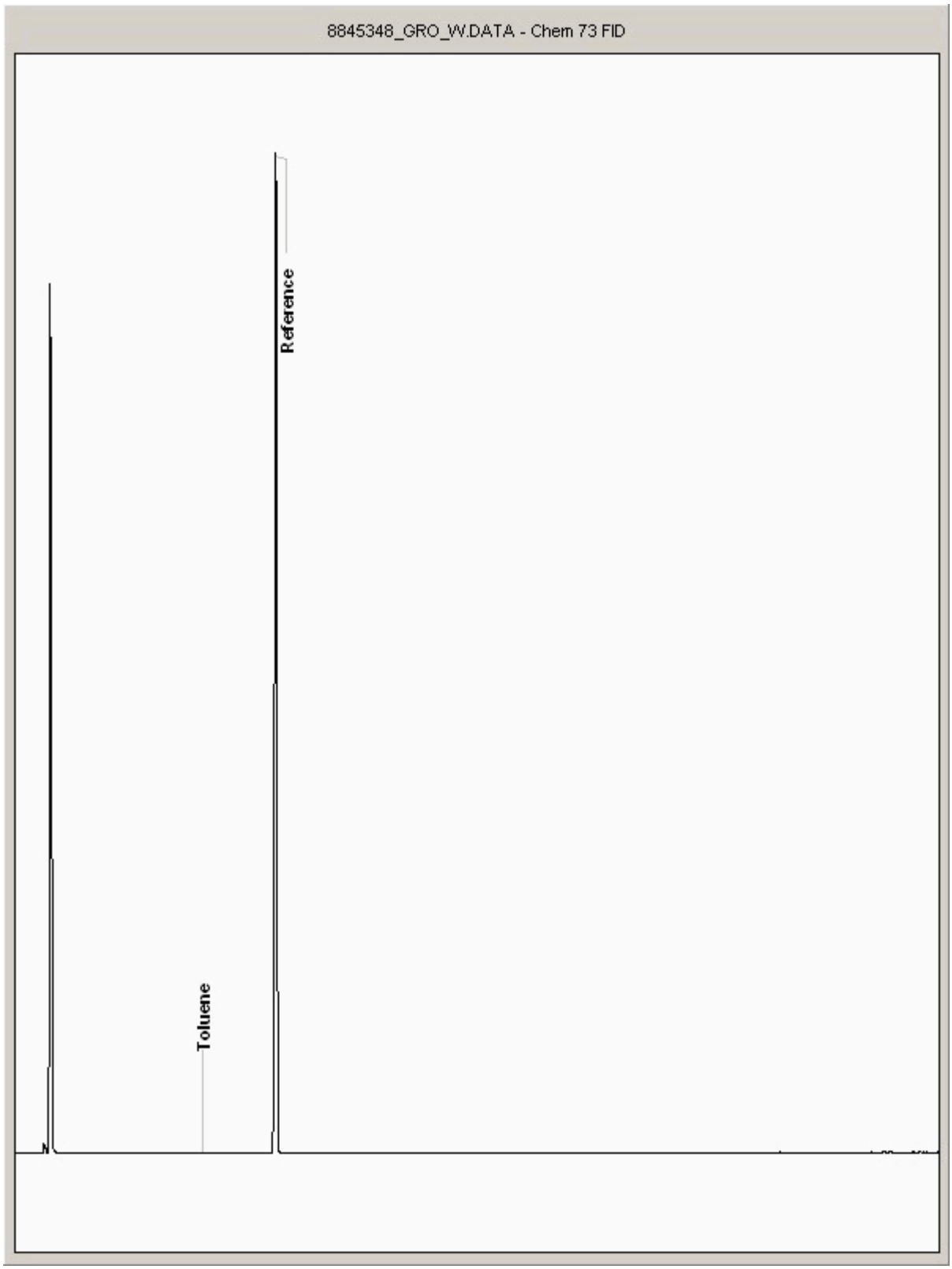
SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8845348
Sample ID : NACW228

Depth :



CERTIFICATE OF ANALYSIS

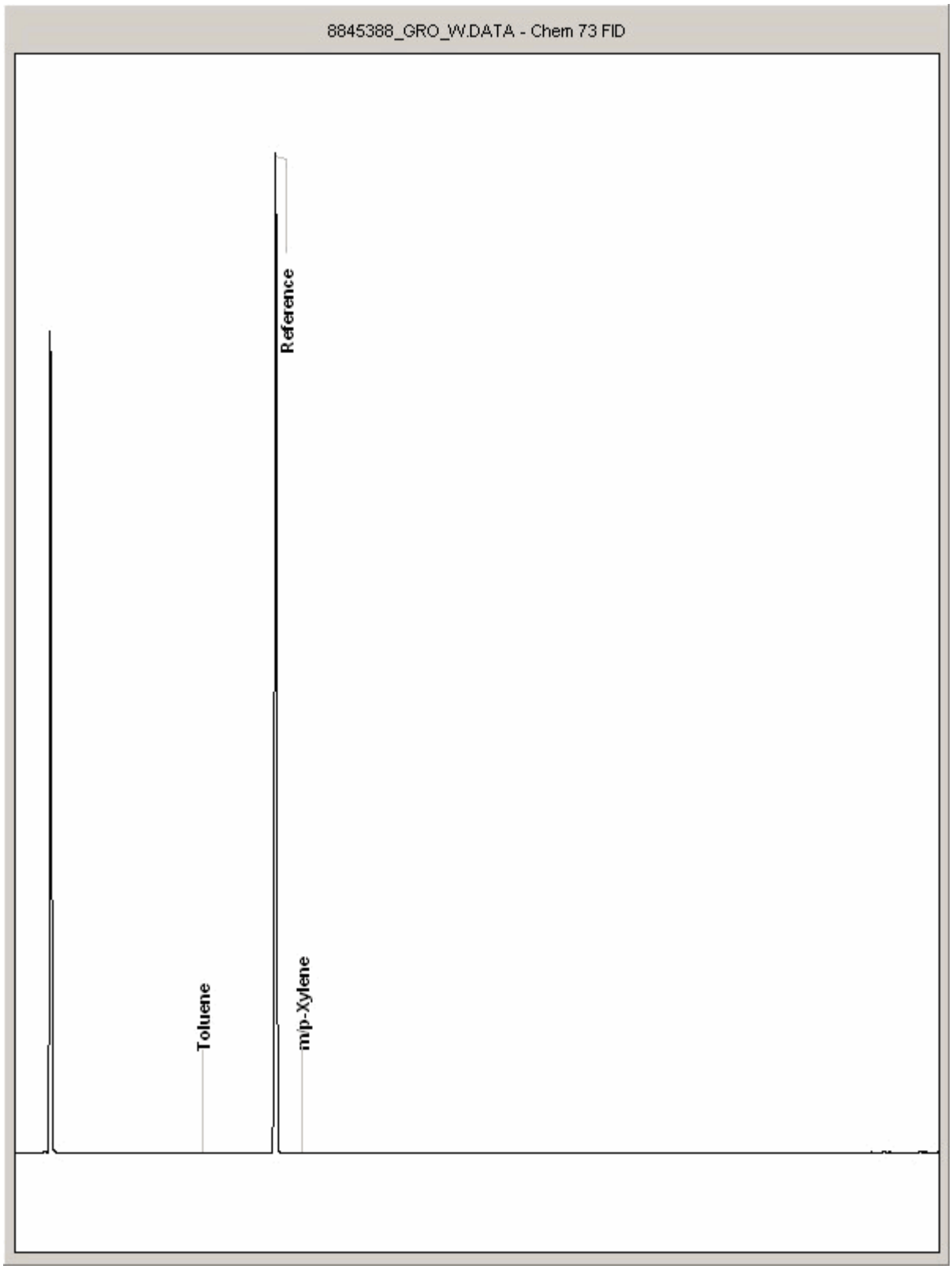
SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8845388
Sample ID : NACW203

Depth :



CERTIFICATE OF ANALYSIS

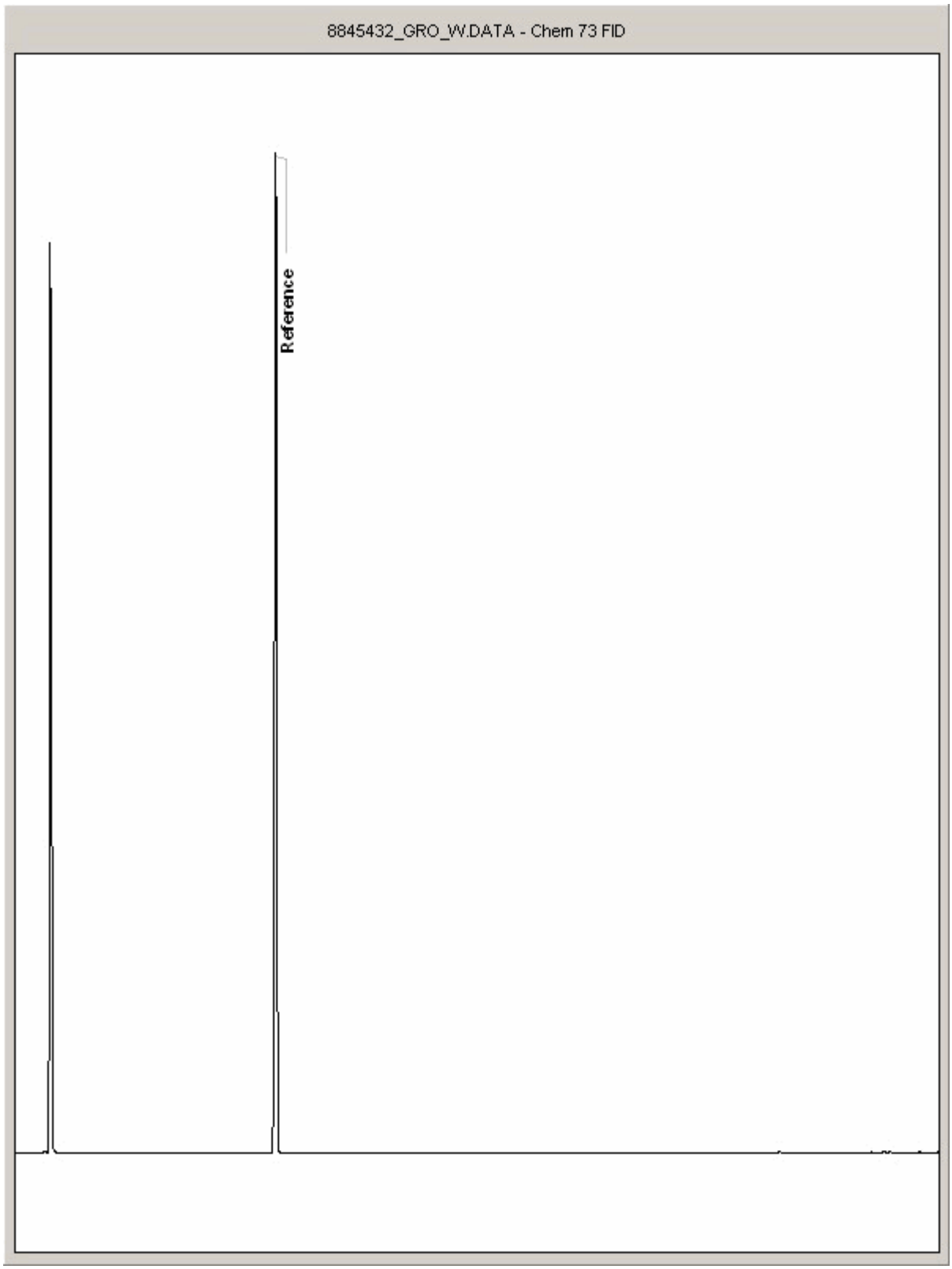
SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8845432
Sample ID : UD 5

Depth :



CERTIFICATE OF ANALYSIS

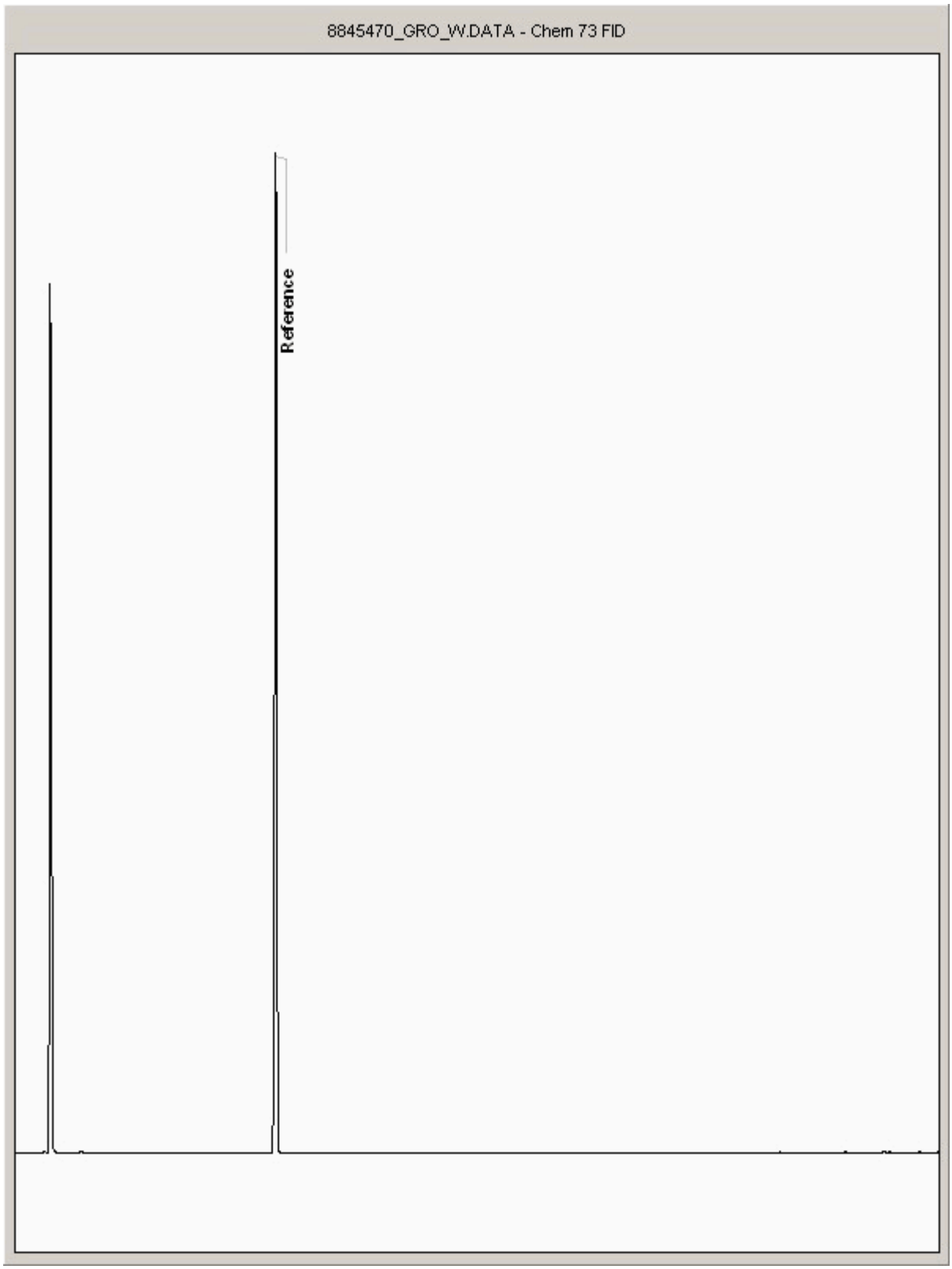
SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8845470
Sample ID : NACW212

Depth :



CERTIFICATE OF ANALYSIS

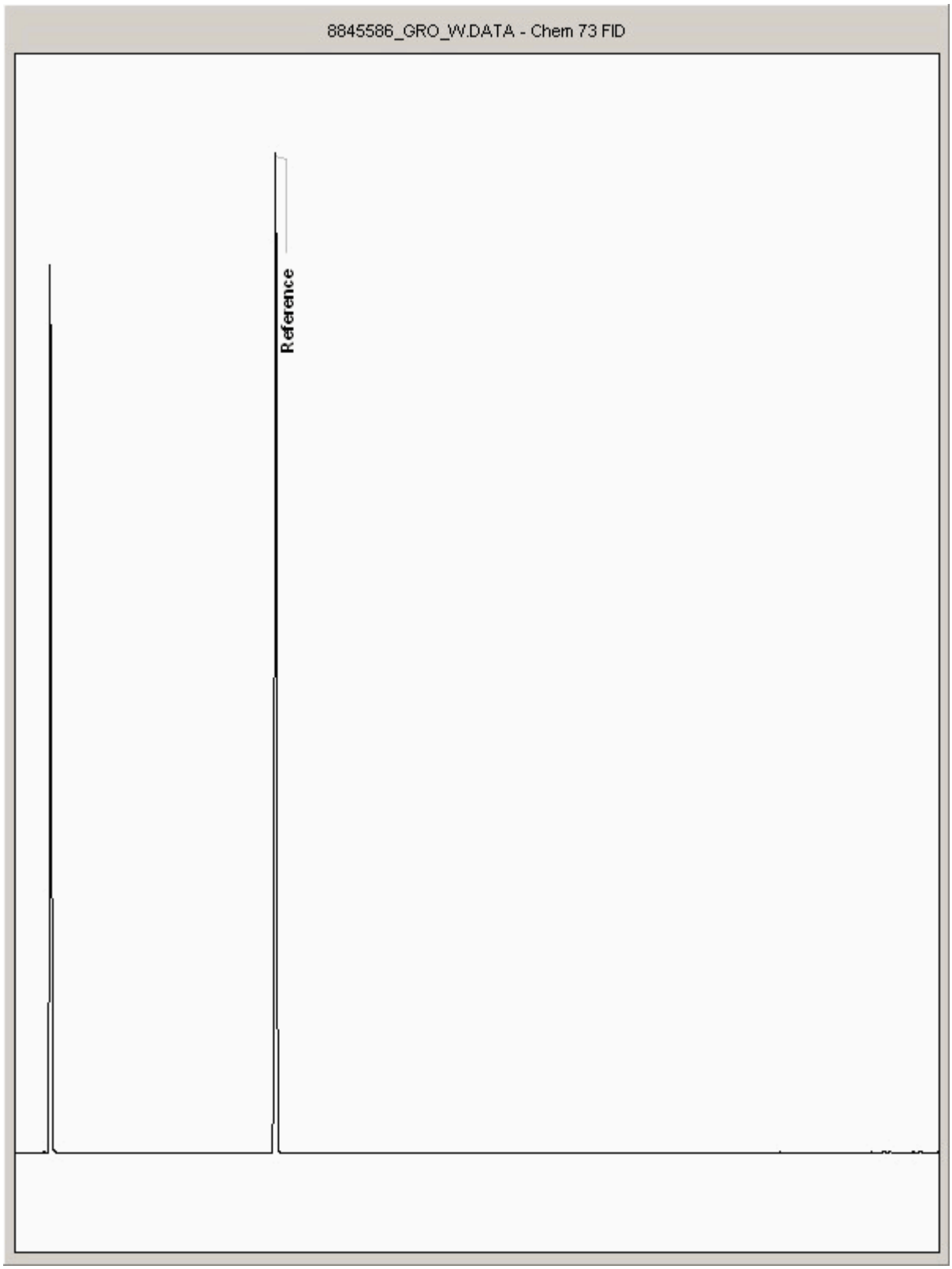
SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8845586
Sample ID : NACW227

Depth :



CERTIFICATE OF ANALYSIS

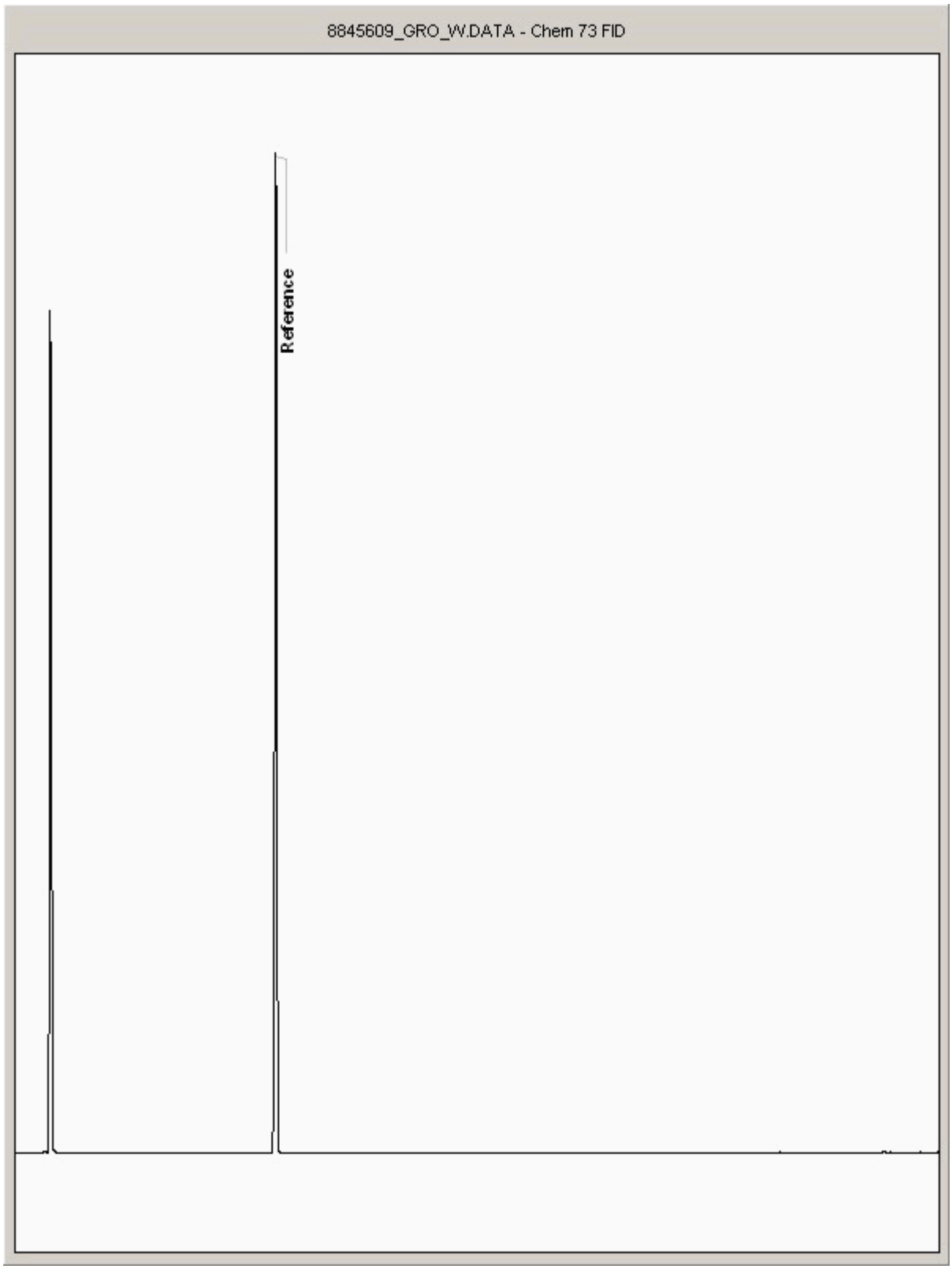
SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8845609
Sample ID : UD 1

Depth :



CERTIFICATE OF ANALYSIS

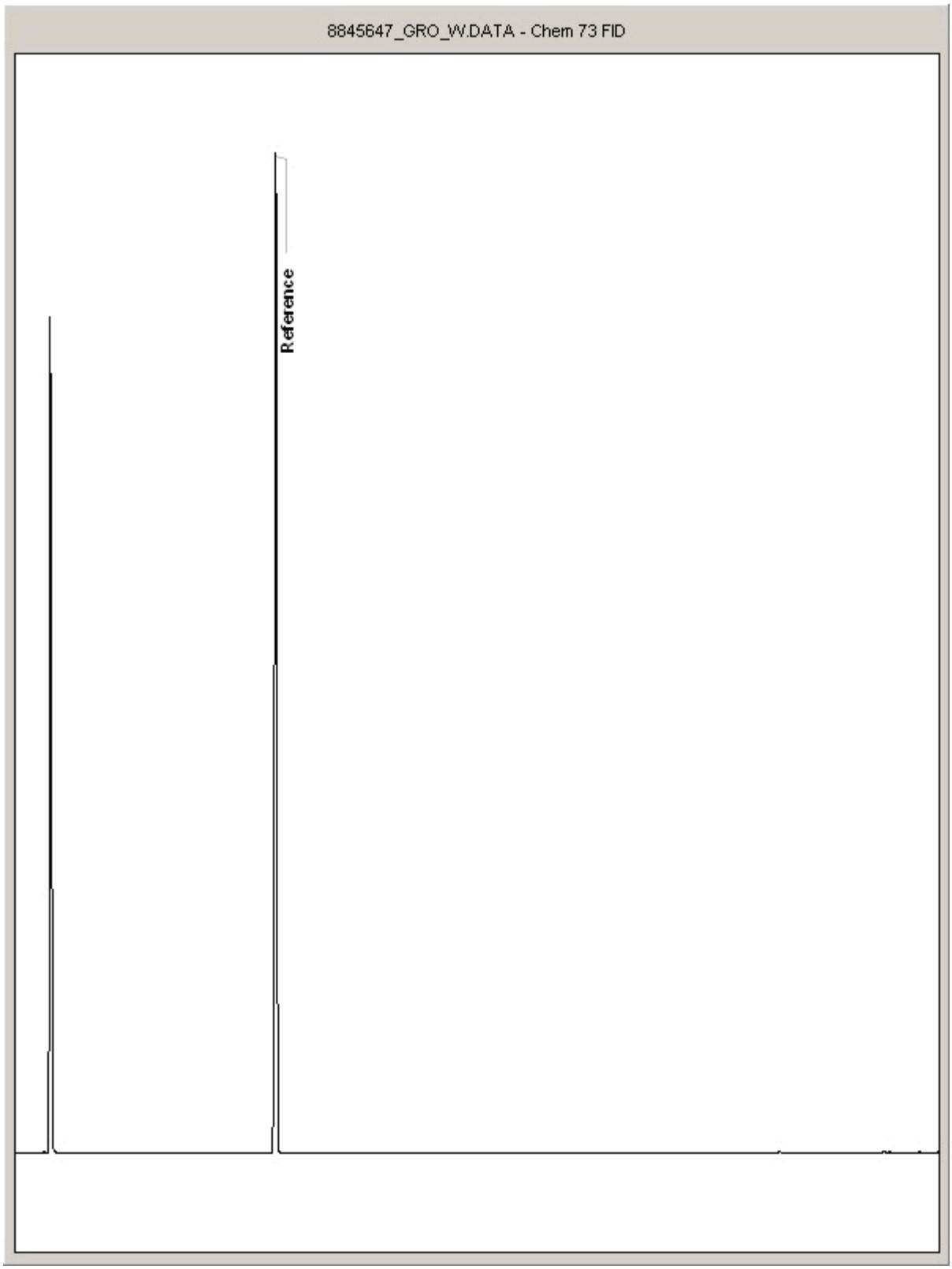
SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8845647
Sample ID : NACW205

Depth :



CERTIFICATE OF ANALYSIS

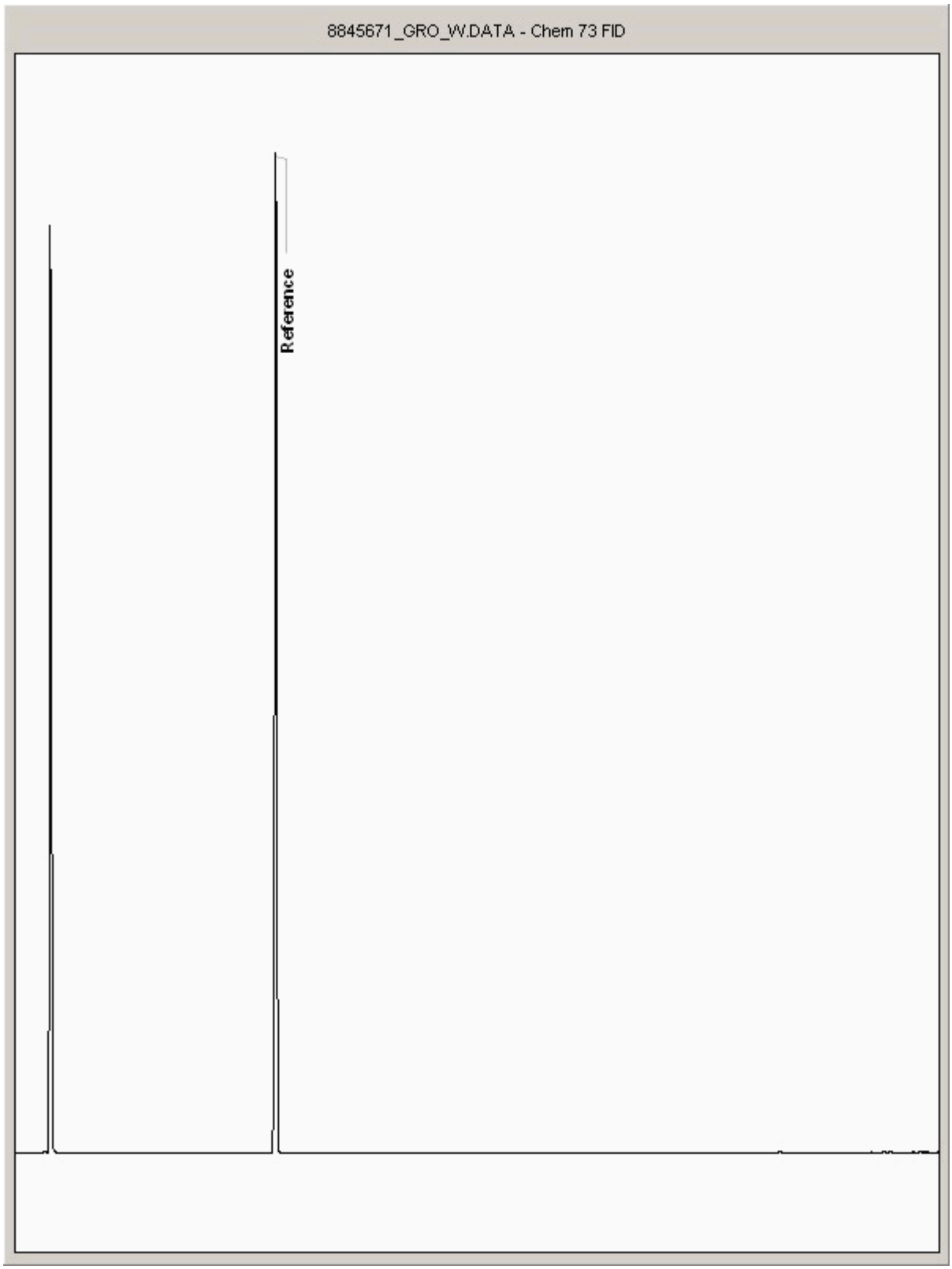
SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8845671
Sample ID : UD 3

Depth :



CERTIFICATE OF ANALYSIS

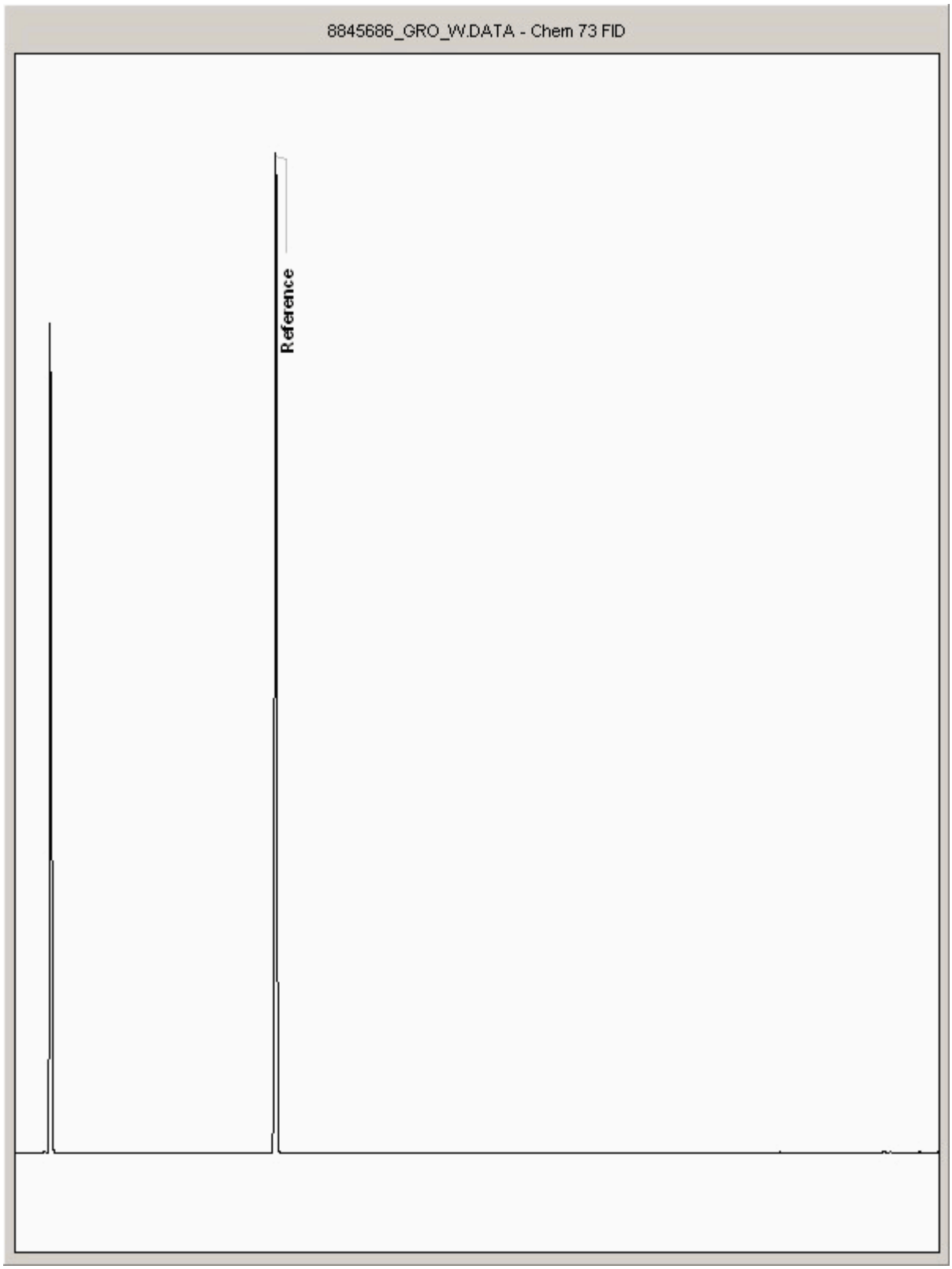
SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8845686
Sample ID : BH 208

Depth :



CERTIFICATE OF ANALYSIS

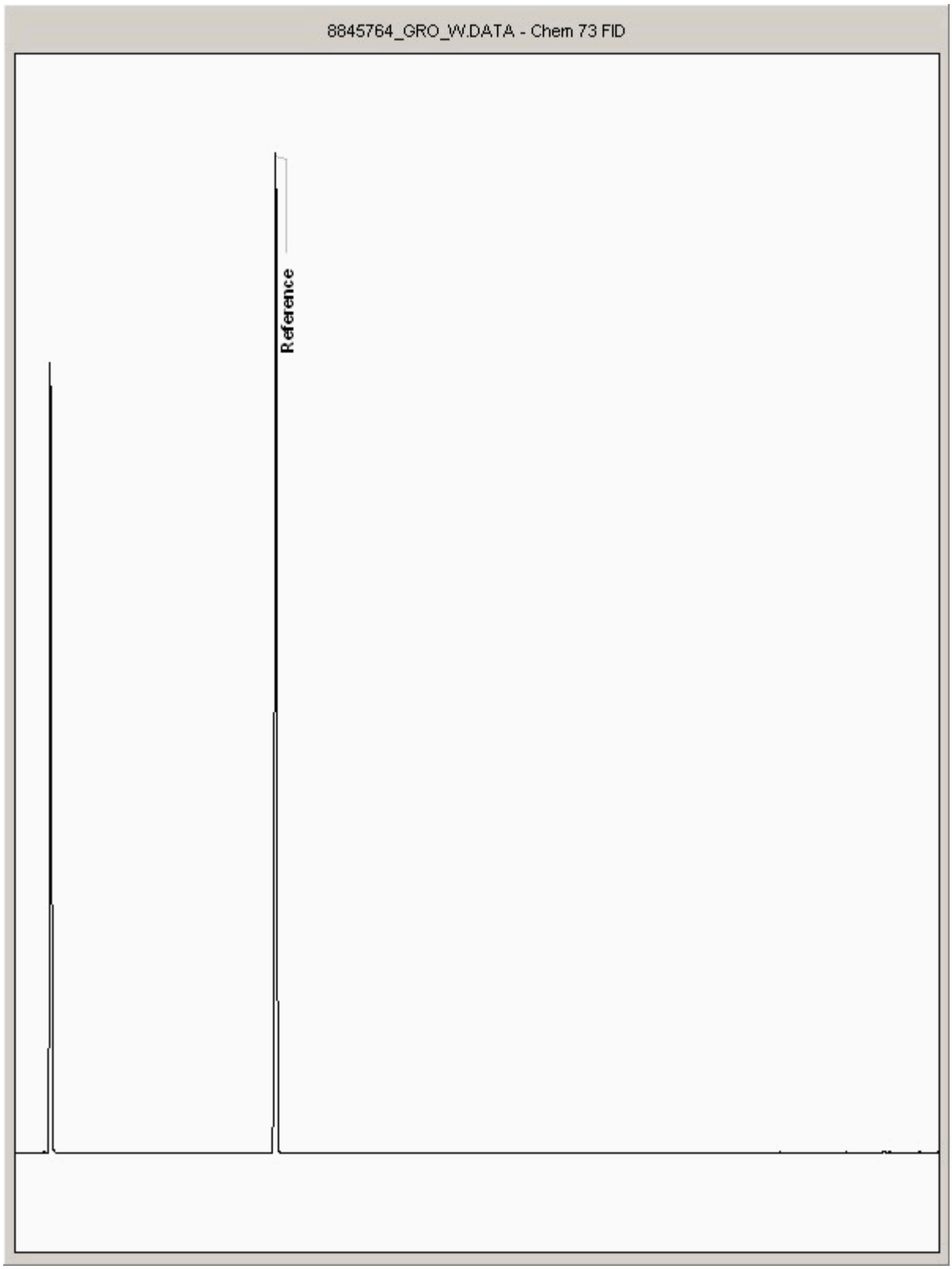
SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8845764
Sample ID : BH 5/2

Depth :



CERTIFICATE OF ANALYSIS

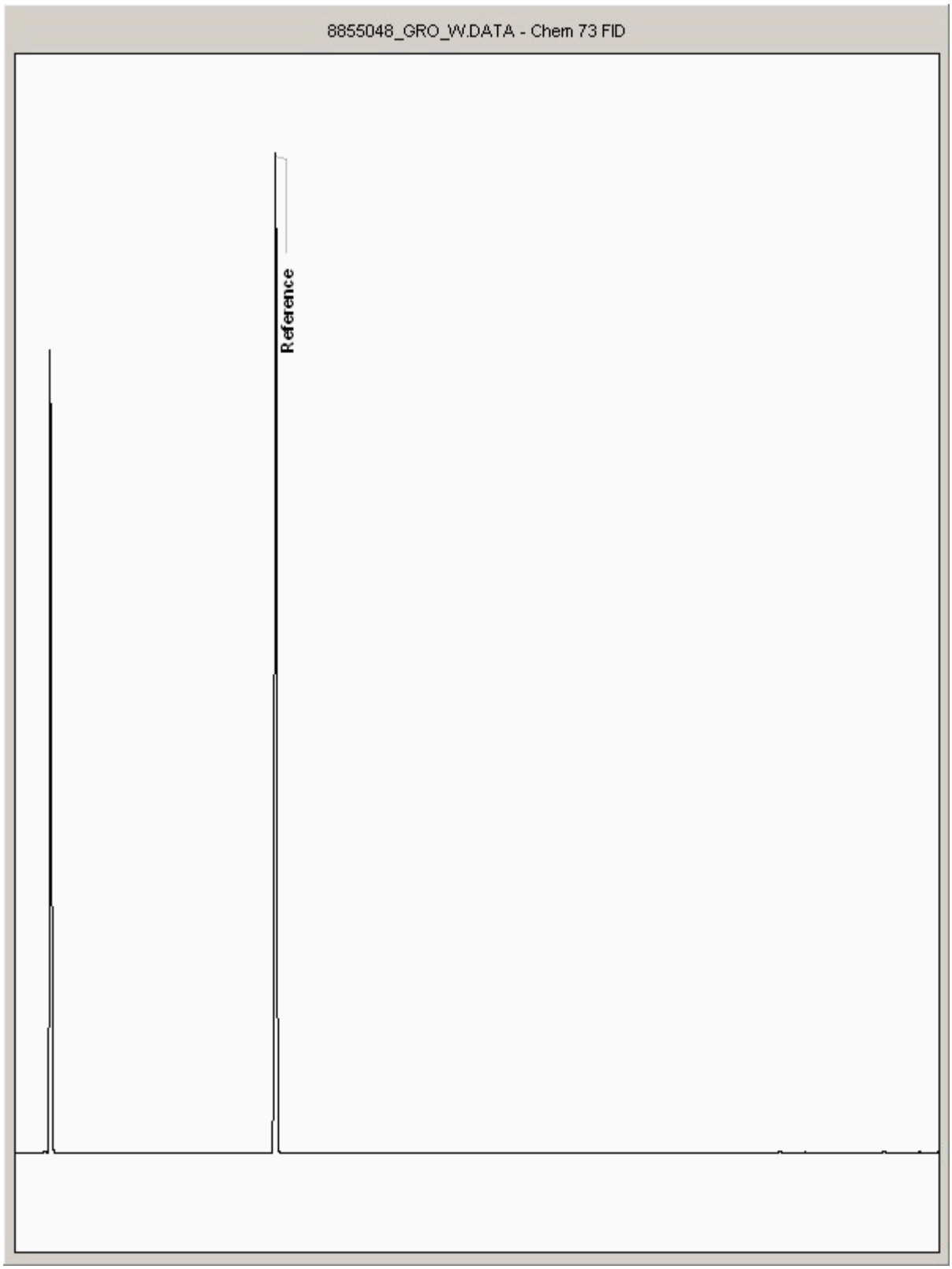
SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8855048
Sample ID : BH 3/4

Depth :



CERTIFICATE OF ANALYSIS

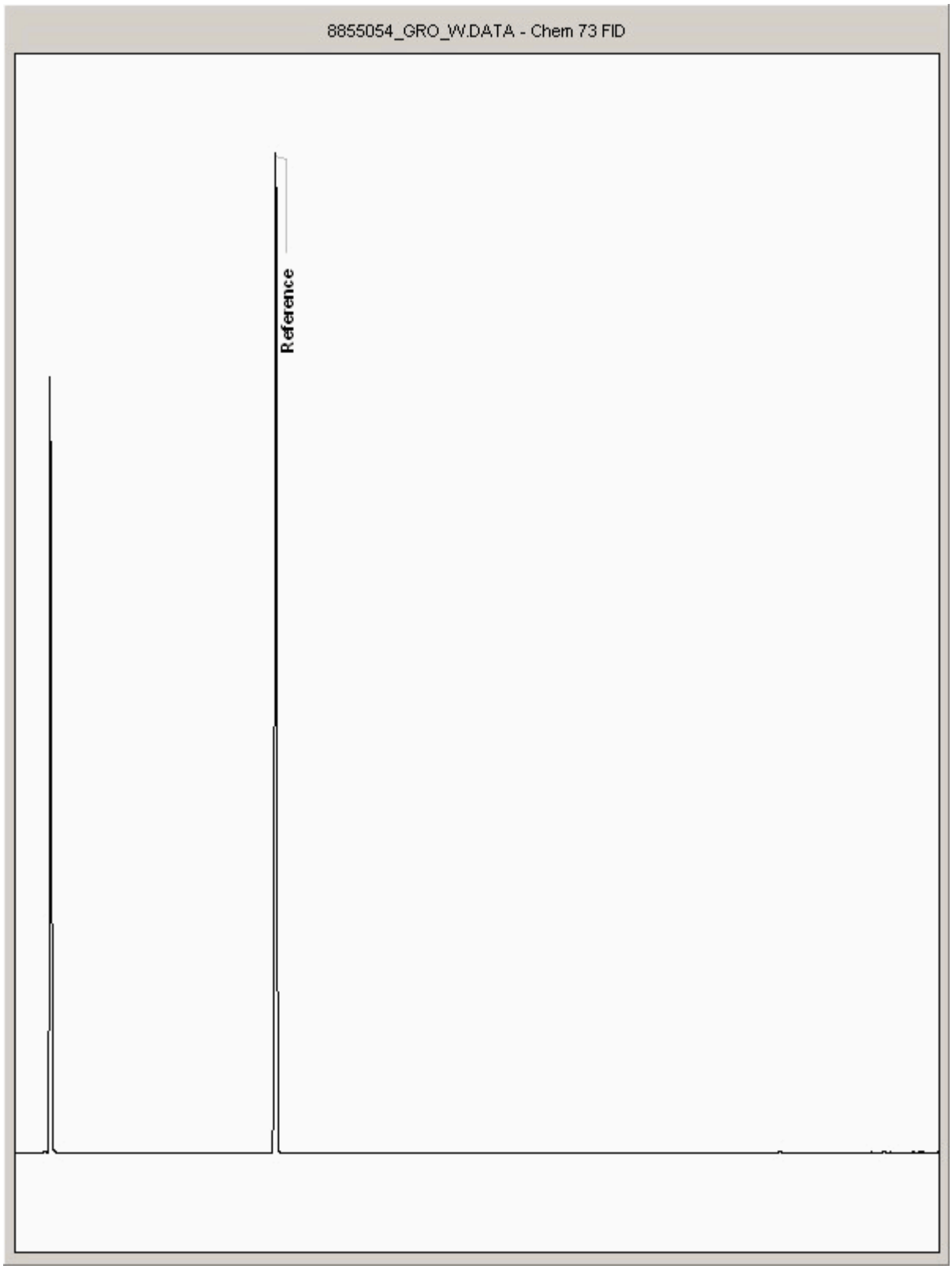
SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8855054
Sample ID : UD 4

Depth :



CERTIFICATE OF ANALYSIS

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA Leach tests, flash point, ammonium as NH4 by the BRE method, VOC TICS, SVOC TICS, TOF-MS SCAN/SEARCH and TOF-MS TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for both soil jars, tubs and volatile jars. All waters and vials will be discarded 10 days after the analysis is completed (e-mailed). All material removed during an asbestos containing material screen and analysed for the presence of asbestos will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be screened in house for the presence of large asbestos containing material fragments/pieces. If no asbestos containing material is found this will be reported as 'no asbestos containing material detected'. If asbestos containing material is detected it will be removed and analysed by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If asbestos containing material is present no further analysis will be undertaken. At no point is the fibre content of the soil sample determined.

7. If no separate volatile sample is supplied by the client, the integrity of the data may be compromised if the laboratory is required to create a sub-sample from the bulk sample -similarly, if a headspace or sediment is present in the volatile sample. This will be flagged up as an invalid VOC on the test schedule or recorded on the log sheet.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. A table containing the date of analysis for each parameter is not routinely included with the report, but is available upon request.

12. Results relate only to the items tested

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 14).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. Our MCERTS accreditation for PAHs by GCMS applies to all product types apart from Kerosene, where naphthalene only is not
accredited.

19. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

20. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

21. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

22. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

23. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials -whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute themajor part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

24. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C4 -C10 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

SOLID MATRICES EXTRACTION SUMMARY

ANALYSIS	D/C OR WET	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
SOLVENT EXTRACTABLE MATTER	D&C	DCM	SOXTHERM	GRAVIMETRIC
CYCLOHEXANE EXT. MATTER	D&C	CYCLOHEXANE	SOXTHERM	GRAVIMETRIC
THIN LAYER CHROMATOGRAPHY	D&C	DCM	SOXTHERM	IATROSCAN
ELEMENTAL SULPHUR	D&C	DCM	SOXTHERM	HPLC
PHENOLS BY GCMS	WET	DCM	SOXTHERM	GC-MS
HERBICIDES	D&C	HEXANE/ACETONE	SOXTHERM	GC-MS
PESTICIDES	D&C	HEXANE/ACETONE	SOXTHERM	GC-MS
EPH (DRO)	D&C	HEXANE/ACETONE	END OVER END	GC-FID
EPH (MIN OIL)	D&C	HEXANE/ACETONE	END OVER END	GC-FID
EPH (CLEANED UP)	D&C	HEXANE/ACETONE	END OVER END	GC-FID
EPH CWG BY GC	D&C	HEXANE/ACETONE	END OVER END	GC-FID
PCB TOT / PCB CON	D&C	HEXANE/ACETONE	END OVER END	GC-MS
POLYAROMATIC HYDROCARBONS (MS)	WET	HEXANE/ACETONE	MICROWAVE TM218.	GC-MS
C8-C40 (C6-C40) EZ FLASH	WET	HEXANE/ACETONE	SHAKER	GC-EZ
POLYAROMATIC HYDROCARBONS RAPID GC	WET	HEXANE/ACETONE	SHAKER	GC-EZ
SEMI VOLATILE ORGANIC COMPOUNDS	WET	DCM/ACETONE	SONICATE	GC-MS

LIQUID MATRICES EXTRACTION SUMMARY

ANALYSIS	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
PAH MS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
EPH	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
EPH CWG	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
MINERAL OIL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
PCB 7 CONGENERS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
PCB TOTAL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
SVOC	DCM	LIQUID/LIQUID SHAKE	GC MS
FREE SULPHUR	DCM	SOLID PHASE EXTRACTION	HPLC
PEST OCP/OPP	DCM	LIQUID/LIQUID SHAKE	GC MS
TRIAZINE HERBS	DCM	LIQUID/LIQUID SHAKE	GC MS
PHENOLS MS	DCM	SOLID PHASE EXTRACTION	GC MS
TPH by INFRARED (IR)	TCE	LIQUID/LIQUID SHAKE	HPLC
MINERAL OIL by IR	TCE	LIQUID/LIQUID SHAKE	HPLC
GLYCOLS	NONE	DIRECT INJECTION	GC MS

Identification of Asbestos in Bulk Materials

The results for asbestos identification for soil samples are obtained from possible Asbestos Containing Material, removed during the 'Screening of soils for Asbestos Containing Materials', which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -
Trace -Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in MDHS 100.

The identification of asbestos containing materials falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Last Updated : 2010/09/08

SDG:	140213-80	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303715
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before presevation was performed
§	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

ALcontrol Laboratories

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CWM Environmental Ltd
Nantyclaws Landfill Site
Llanddarg Road
Carmarthen
Carmarthenshire
SA32 8BG

Attention: Mike Lewis

CERTIFICATE OF ANALYSIS

Date:	03 March 2014
Customer:	H_CWMENV_NAN
Sample Delivery Group (SDG):	140215-5
Your Reference:	
Location:	Phase 2-3
Report No:	261778

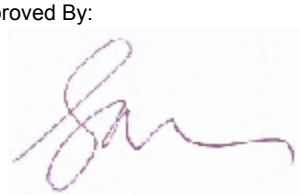
This report has been revised and directly supersedes 261534 in its entirety.

We received 8 samples on Saturday February 15, 2014 and 8 of these samples were scheduled for analysis which was completed on Monday March 03, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
8849401	BH3/2			13/02/2014
8849402	BH3/3			13/02/2014
8849403	BH3/5			13/02/2014
8849404	BH3/6			13/02/2014
8849405	BH3/8			13/02/2014
8849406	BH3/9			13/02/2014
8849408	NACW 219			13/02/2014
8849410	NACW 229			13/02/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

LIQUID

Results Legend

X Test

N No Determination Possible

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			8849401	BH3/2			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
			8849402	BH3/3			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
			8849403	BH3/5			1lplastic (ALE221)
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
			8849404	BH3/6			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
			8849405	BH3/8			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
			8849406	BH3/9			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
			8849408	NACW 219			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
			8849410	NACW 229			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
Acid Herbicides by LCQQQ (aq)	All	NDPs: 0 Tests: 8	X			X	X			X			X			X			X			X			X			X			X		
Alkalinity as CaCO3	All	NDPs: 0 Tests: 8		X			X			X			X			X			X			X			X			X			X		
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 8			X			X			X			X			X			X			X			X			X			X	
Anions by Kone (w)	All	NDPs: 0 Tests: 8		X			X			X			X			X			X			X			X			X			X		
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 8		X			X			X			X			X			X			X			X			X			X		
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 8		X			X			X			X			X			X			X			X			X			X		
EPH (DRO) (C10-C40) Aqueous (W)	All	NDPs: 0 Tests: 8	X			X			X			X			X			X			X			X			X			X			X	
GRO by GC-FID (W)	All	NDPs: 0 Tests: 8			X			X			X			X			X			X			X			X			X			X		X
Metals by iCap-OES Dissolved (W)	All	NDPs: 0 Tests: 8		X			X			X			X			X			X			X			X			X			X		
Nitrite by Kone (w)	All	NDPs: 0 Tests: 8			X			X			X			X			X			X			X			X			X			X	
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 8	X			X			X			X			X			X			X			X			X			X			X	
Total EPH (aq)	All	NDPs: 0 Tests: 8	X			X			X			X			X			X			X			X			X			X			X	
VOC MS (W)	All	NDPs: 0 Tests: 8			X			X			X			X			X			X			X			X			X			X		X

CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/5	BH3/6	BH3/8	BH3/9
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	15/02/2014	15/02/2014	15/02/2014	15/02/2014	15/02/2014	15/02/2014
			SDG Ref	140215-5	140215-5	140215-5	140215-5	140215-5	140215-5
			Lab Sample No.(s)	8849401	8849402	8849403	8849404	8849405	8849406
			AGS Reference						
Alkalinity, Total as CaCO3	<2 mg/l	TM043		70 #	155 #	115 #	115 #	39 #	90 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	<0.2 #	<0.2 #	<0.2 #	0.268 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.18 #	0.303 #	0.27 #	0.31 #	0.124 #	0.219 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		1.7 #	2.56 #	2.17 #	2.84 #	2.15 #	1.43 #
Copper (diss.filt)	<0.85 µg/l	TM152		1.2 #	<0.85 #	5.3 #	4.04 #	2.14 #	<0.85 #
Lead (diss.filt)	<0.02 µg/l	TM152		0.046 #	<0.02 #	0.082 #	0.047 #	0.18 #	<0.02 #
Manganese (diss.filt)	<0.04 µg/l	TM152		608 #	0.21 #	1.97 #	392 #	393 #	478 #
Nickel (diss.filt)	<0.15 µg/l	TM152		0.963 #	0.713 #	2.07 #	3.75 #	1.8 #	0.806 #
Zinc (diss.filt)	<0.41 µg/l	TM152		1.78 #	0.449 #	2.9 #	0.674 #	2.52 #	0.823 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		56.3 #	91 #	<46 #	85.4 #	47000 #	<46 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		<100	<100	<100	<100	47000	<100
Nitrite as NO2	<0.05 mg/l	TM184		<0.05 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #
Sulphate	<2 mg/l	TM184		3.2 #	7.3 #	<2 #	15.4 #	<2 #	3.1 #
Chloride	<2 mg/l	TM184		15 #	11 #	21.9 #	30.9 #	15.4 #	17.9 #
Nitrate as NO3	<0.3 mg/l	TM184		3.05 #	9.45 #	1.79 #	3.23 #	<0.3 #	5.68 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		0.693 #	2.14 #	0.409 #	0.734 #	<0.1 #	1.29 #
Calcium (diss.filt)	<0.012 mg/l	TM228		24 #	47.7 #	47.5 #	41.3 #	12.4 #	35.1 #
Sodium (diss.filt)	<0.076 mg/l	TM228		9.23 #	8.68 #	7.04 #	12.4 #	6.78 #	8.77 #
Magnesium (diss.filt)	<0.036 mg/l	TM228		2.76 #	5.48 #	1.8 #	6.49 #	3.04 #	1.57 #
Potassium (diss.filt)	<1 mg/l	TM228		<1 #	1.13 #	4.64 #	3.8 #	<1 #	<1 #
Iron (diss.filt)	<0.019 mg/l	TM228		0.0264 #	<0.019 #	0.0507 #	0.0859 #	0.599 #	<0.019 #
MCPP (Mecoprop)	<0.04 µg/l	TM324		<0.04	<0.04	<0.04	<0.04	<0.064	<0.04

CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW 219	NACW 229
			Depth (m)	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)
			Date Sampled	13/02/2014	13/02/2014
			Sampled Time	.	.
			Date Received	15/02/2014	15/02/2014
			SDG Ref	140215-5	140215-5
			Lab Sample No.(s)	8849408	8849410
			AGS Reference		
Alkalinity, Total as CaCO3	<2 mg/l	TM043		155 #	90 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.327 #	0.33 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		2.29 #	1.84 #
Copper (diss.filt)	<0.85 µg/l	TM152		1.01 #	5.35 #
Lead (diss.filt)	<0.02 µg/l	TM152		<0.02 #	0.116 #
Manganese (diss.filt)	<0.04 µg/l	TM152		15.9 #	22.3 #
Nickel (diss.filt)	<0.15 µg/l	TM152		1.78 #	2.09 #
Zinc (diss.filt)	<0.41 µg/l	TM152		6.74 #	4.94 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		83.9 #	<46 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		<100	<100
Nitrite as NO2	<0.05 mg/l	TM184		<0.05 #	<0.05 #
Sulphate	<2 mg/l	TM184		9.1 #	37.5 #
Chloride	<2 mg/l	TM184		15.9 #	33.1 #
Nitrate as NO3	<0.3 mg/l	TM184		0.456 #	2.39 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		0.108 #	0.548 #
Calcium (diss.filt)	<0.012 mg/l	TM228		55 #	42.1 #
Sodium (diss.filt)	<0.076 mg/l	TM228		8.02 #	13.4 #
Magnesium (diss.filt)	<0.036 mg/l	TM228		4.63 #	4.47 #
Potassium (diss.filt)	<1 mg/l	TM228		<1 #	12.2 #
Iron (diss.filt)	<0.019 mg/l	TM228		<0.019 #	0.0307 #
MCPP (Mecoprop)	<0.04 µg/l	TM324		<0.04	0.231

CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/5	BH3/6	BH3/8	BH3/9
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	15/02/2014	15/02/2014	15/02/2014	15/02/2014	15/02/2014	15/02/2014
			SDG Ref	140215-5	140215-5	140215-5	140215-5	140215-5	140215-5
			Lab Sample No.(s)	8849401	8849402	8849403	8849404	8849405	8849406
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		<7 #	<7 #	<7 #	<7 #	<7 #	<7 #
Toluene	<4 µg/l	TM245		<4 #	<4 #	<4 #	<4 #	<4 #	<4 #
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	<8 #	<8 #	<8 #	<8 #
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	<28	<28	<28	<28
EPH (C6-C10)	<100 µg/l	TM245		<100	<100	<100	<100	<100	<100

CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW 219	NACW 229
			Depth (m)	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)
			Date Sampled	13/02/2014	13/02/2014
			Sampled Time	.	.
			Date Received	15/02/2014	15/02/2014
			SDG Ref	140215-5	140215-5
			Lab Sample No.(s)	8849408	8849410
			AGS Reference		
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #
Benzene	<7 µg/l	TM245		<7 #	<7 #
Toluene	<4 µg/l	TM245		<4 #	<4 #
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #
o-Xylene	<3 µg/l	TM245		<3 #	<3 #
Sum of detected BTEX	<28 µg/l	TM245		<28	<28
EPH (C6-C10)	<100 µg/l	TM245		<100	<100

CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/5	BH3/6	BH3/8	BH3/9
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	15/02/2014	15/02/2014	15/02/2014	15/02/2014	15/02/2014	15/02/2014
			SDG Ref	140215-5	140215-5	140215-5	140215-5	140215-5	140215-5
			Lab Sample No.(s)	8849401	8849402	8849403	8849404	8849405	8849406
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<2 #	<2 #	<2 #	<2 #	11.6 #	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/5	BH3/6	BH3/8	BH3/9
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	15/02/2014	15/02/2014	15/02/2014	15/02/2014	15/02/2014	15/02/2014
			SDG Ref	140215-5	140215-5	140215-5	140215-5	140215-5	140215-5
			Lab Sample No.(s)	8849401	8849402	8849403	8849404	8849405	8849406
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbazole (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chrysene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Fluorene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isophorone (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenanthrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW 219	NACW 229				
			Depth (m)	.	.				
			Sample Type	Water(GW/SW)	Water(GW/SW)				
			Date Sampled	13/02/2014	13/02/2014				
			Sampled Time	.	.				
			Date Received	15/02/2014	15/02/2014				
			SDG Ref	140215-5	140215-5				
			Lab Sample No.(s)	8849408	8849410				
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #				
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #				
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #				
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1	<1				
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #				
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #				
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #				
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #				
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #				
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #				
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #				
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #				
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #				
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #				
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #				
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<1 #				
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #				
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #				
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #				
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<1				
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #				
4-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #				
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #				
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<1				
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #				
Acenaphthylene (aq)	<1 µg/l	TM176		<1 #	<1 #				
Acenaphthene (aq)	<1 µg/l	TM176		<1 #	<1 #				
Anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #				
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<1 #				
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<1 #				
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<2 #	<2 #				
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #				

CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW 219	NACW 229				
			Depth (m)	.	.				
			Sample Type	Water(GW/SW)	Water(GW/SW)				
			Date Sampled	13/02/2014	13/02/2014				
			Sampled Time	.	.				
			Date Received	15/02/2014	15/02/2014				
			SDG Ref	140215-5	140215-5				
			Lab Sample No.(s)	8849408	8849410				
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #				
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #				
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #				
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #				
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<1 #	<1 #				
Carbazole (aq)	<1 µg/l	TM176		<1 #	<1 #				
Chrysene (aq)	<1 µg/l	TM176		<1 #	<1 #				
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<1 #				
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		1.28 #	<1 #				
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #				
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #				
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #				
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<5 #				
Fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #				
Fluorene (aq)	<1 µg/l	TM176		<1 #	<1 #				
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #				
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<1 #				
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<1				
Phenol (aq)	<1 µg/l	TM176		<1	<1				
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<1 #				
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<1 #				
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #				
Naphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #				
Isophorone (aq)	<1 µg/l	TM176		<1 #	<1 #				
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<1				
Phenanthrene (aq)	<1 µg/l	TM176		<1 #	<1 #				
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #				
Pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #				

CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/5	BH3/6	BH3/8	BH3/9
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	15/02/2014	15/02/2014	15/02/2014	15/02/2014	15/02/2014	15/02/2014
			SDG Ref	140215-5	140215-5	140215-5	140215-5	140215-5	140215-5
			Lab Sample No.(s)	8849401	8849402	8849403	8849404	8849405	8849406
			AGS Reference						
Dibromofluoromethane**	%	TM208		108	107	109	108		109
Toluene-d8**	%	TM208		99	99.1	99.7	98.1		98.5
4-Bromofluorobenzene**	%	TM208		98.8	98.5	95.3	99.7		97.5
Dichlorodifluoromethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Benzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/5	BH3/6	BH3/8	BH3/9
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014	13/02/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	15/02/2014	15/02/2014	15/02/2014	15/02/2014	15/02/2014	15/02/2014
			SDG Ref	140215-5	140215-5	140215-5	140215-5	140215-5	140215-5
			Lab Sample No.(s)	8849401	8849402	8849403	8849404	8849405	8849406
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #		<1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Depth (m)	Sample Type	Date Sampled	Sampled Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			BH3/2	.	Water(GW/SW)	13/02/2014	.	15/02/2014	140215-5	8849401	
1,2,3-Trichlorobenzene	<1 µg/l	TM208	<1 #								
1,3,5-Trichlorobenzene	<1 µg/l	TM208	<1								

Component	LOD/Units	Method	Customer Sample R	Depth (m)	Sample Type	Date Sampled	Sampled Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			BH3/3	.	Water(GW/SW)	13/02/2014	.	15/02/2014	140215-5	8849402	
1,2,3-Trichlorobenzene	<1 µg/l	TM208	<1 #								
1,3,5-Trichlorobenzene	<1 µg/l	TM208	<1								

Component	LOD/Units	Method	Customer Sample R	Depth (m)	Sample Type	Date Sampled	Sampled Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			BH3/5	.	Water(GW/SW)	13/02/2014	.	15/02/2014	140215-5	8849403	
1,2,3-Trichlorobenzene	<1 µg/l	TM208	<1 #								
1,3,5-Trichlorobenzene	<1 µg/l	TM208	<1								

Component	LOD/Units	Method	Customer Sample R	Depth (m)	Sample Type	Date Sampled	Sampled Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			BH3/6	.	Water(GW/SW)	13/02/2014	.	15/02/2014	140215-5	8849404	
1,2,3-Trichlorobenzene	<1 µg/l	TM208	<1 #								
1,3,5-Trichlorobenzene	<1 µg/l	TM208	<1								

Component	LOD/Units	Method	Customer Sample R	Depth (m)	Sample Type	Date Sampled	Sampled Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			BH3/8	.	Water(GW/SW)	13/02/2014	.	15/02/2014	140215-5	8849405	
1,2,3-Trichlorobenzene	<1 µg/l	TM208	<1 #								
1,3,5-Trichlorobenzene	<1 µg/l	TM208									

Component	LOD/Units	Method	Customer Sample R	Depth (m)	Sample Type	Date Sampled	Sampled Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			BH3/9	.	Water(GW/SW)	13/02/2014	.	15/02/2014	140215-5	8849406	
1,2,3-Trichlorobenzene	<1 µg/l	TM208	<1 #								
1,3,5-Trichlorobenzene	<1 µg/l	TM208	<1								

CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW 219	NACW 229				
			Depth (m)	.	.				
			Sample Type	Water(GW/SW)	Water(GW/SW)				
			Date Sampled	13/02/2014	13/02/2014				
			Sampled Time	.	.				
			Date Received	15/02/2014	15/02/2014				
			SDG Ref	140215-5	140215-5				
			Lab Sample No.(s)	8849408	8849410				
			AGS Reference						
Dibromofluoromethane**	%	TM208		109	111				
Toluene-d8**	%	TM208		98.8	98.2				
4-Bromofluorobenzene**	%	TM208		100	97.9				
Dichlorodifluoromethane	<1 µg/l	TM208		<1	<1				
Chloromethane	<1 µg/l	TM208		<1 #	<1 #				
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #				
Bromomethane	<1 µg/l	TM208		<1 #	<1 #				
Chloroethane	<1 µg/l	TM208		<1 #	<1 #				
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #				
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #				
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #				
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #				
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #				
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #				
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #				
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #				
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1				
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #				
Chloroform	<1 µg/l	TM208		<1 #	1.83 #				
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #				
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #				
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #				
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1				
Benzene	<1 µg/l	TM208		<1 #	<1 #				
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #				
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #				
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #				
Bromodichloromethane	<1 µg/l	TM208		<1 #	1.81 #				
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #				
Toluene	<1 µg/l	TM208		<1 #	<1 #				
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #				
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #				

CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW 219	NACW 229				
			Depth (m)	.	.				
			Sample Type	Water(GW/SW)	Water(GW/SW)				
			Date Sampled	13/02/2014	13/02/2014				
			Sampled Time	.	.				
			Date Received	15/02/2014	15/02/2014				
			SDG Ref	140215-5	140215-5				
			Lab Sample No.(s)	8849408	8849410				
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208	<1 #	<1 #					
Tetrachloroethene	<1 µg/l	TM208	<1 #	<1 #					
Dibromochloromethane	<1 µg/l	TM208	<1 #	1.47 #					
1,2-Dibromoethane	<1 µg/l	TM208	<1 #	<1 #					
Chlorobenzene	<1 µg/l	TM208	<1 #	<1 #					
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208	<1 #	<1 #					
Ethylbenzene	<1 µg/l	TM208	<1 #	<1 #					
m,p-Xylene	<1 µg/l	TM208	<1 #	<1 #					
o-Xylene	<1 µg/l	TM208	<1 #	<1 #					
Styrene	<1 µg/l	TM208	<1 #	<1 #					
Bromoform	<1 µg/l	TM208	<1 #	<1 #					
Isopropylbenzene	<1 µg/l	TM208	<1 #	<1 #					
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208	<1	<1					
1,2,3-Trichloropropane	<1 µg/l	TM208	<1 #	<1 #					
Bromobenzene	<1 µg/l	TM208	<1 #	<1 #					
Propylbenzene	<1 µg/l	TM208	<1 #	<1 #					
2-Chlorotoluene	<1 µg/l	TM208	<1 #	<1 #					
1,3,5-Trimethylbenzene	<1 µg/l	TM208	<1 #	<1 #					
4-Chlorotoluene	<1 µg/l	TM208	<1 #	<1 #					
tert-Butylbenzene	<1 µg/l	TM208	<1 #	<1 #					
1,2,4-Trimethylbenzene	<1 µg/l	TM208	<1 #	<1 #					
sec-Butylbenzene	<1 µg/l	TM208	<1 #	<1 #					
4-iso-Propyltoluene	<1 µg/l	TM208	<1 #	<1 #					
1,3-Dichlorobenzene	<1 µg/l	TM208	<1 #	<1 #					
1,4-Dichlorobenzene	<1 µg/l	TM208	<1 #	<1 #					
n-Butylbenzene	<1 µg/l	TM208	<1 #	<1 #					
1,2-Dichlorobenzene	<1 µg/l	TM208	<1	<1					
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208	<1	<1					
1,2,4-Trichlorobenzene	<1 µg/l	TM208	<1 #	<1 #					
Hexachlorobutadiene	<1 µg/l	TM208	<1 #	<1 #					
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208	<1 #	<1 #					
Naphthalene	<1 µg/l	TM208	<1 #	<1 #					

CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW 219	NACW 229			
			Depth (m)	.	.			
			Sample Type	Water(GW/SW)	Water(GW/SW)			
			Date Sampled	13/02/2014	13/02/2014			
			Sampled Time	.	.			
			Date Received	15/02/2014	15/02/2014			
			SDG Ref	140215-5	140215-5			
			Lab Sample No.(s)	8849408	8849410			
			AGS Reference					
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #			
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1			

CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples		
TM061	Method for the Determination of EPH,Massachusetts Dept.of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM120	Method 2510B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part 9:1970	Determination of Electrical Conductivity using a Conductivity Meter		
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS		
TM172	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	EPH in Waters		
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters		
TM228	US EPA Method 6010B	Determination of Major Cations in Water by iCap 6500 Duo ICP-OES		
TM245	By GC-FID	Determination of GRO by Headspace in waters		
TM324		Analysis of Acid Herbicides in Aqueous Sample by LCQQQ		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Test Completion Dates

Lab Sample No(s)	8849401	8849402	8849403	8849404	8849405	8849406	8849408	8849410
Customer Sample Ref.	BH3/2	BH3/3	BH3/5	BH3/6	BH3/8	BH3/9	NACW 219	NACW 229
AGS Ref.								
Depth								
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Acid Herbicides by LCQQQ (aq)	26-Feb-2014	26-Feb-2014	26-Feb-2014	26-Feb-2014	28-Feb-2014	26-Feb-2014	26-Feb-2014	03-Mar-2014
Alkalinity as CaCO3	20-Feb-2014	18-Feb-2014	20-Feb-2014	18-Feb-2014	18-Feb-2014	20-Feb-2014	20-Feb-2014	18-Feb-2014
Ammoniacal Nitrogen	19-Feb-2014	19-Feb-2014	19-Feb-2014	19-Feb-2014	18-Feb-2014	19-Feb-2014	18-Feb-2014	18-Feb-2014
Anions by Kone (w)	24-Feb-2014	25-Feb-2014	24-Feb-2014	25-Feb-2014	25-Feb-2014	24-Feb-2014	24-Feb-2014	25-Feb-2014
Conductivity (at 20 deg.C)	21-Feb-2014	19-Feb-2014	21-Feb-2014	19-Feb-2014	19-Feb-2014	21-Feb-2014	21-Feb-2014	19-Feb-2014
Dissolved Metals by ICP-MS	20-Feb-2014	20-Feb-2014	20-Feb-2014	20-Feb-2014	20-Feb-2014	20-Feb-2014	20-Feb-2014	20-Feb-2014
EPH (DRO) (C10-C40) Aqueous (W)	24-Feb-2014	21-Feb-2014	24-Feb-2014	21-Feb-2014	24-Feb-2014	24-Feb-2014	24-Feb-2014	21-Feb-2014
GRO by GC-FID (W)	19-Feb-2014	19-Feb-2014	19-Feb-2014	19-Feb-2014	19-Feb-2014	19-Feb-2014	19-Feb-2014	19-Feb-2014
Metals by iCap-OES Dissolved (W)	21-Feb-2014	20-Feb-2014	21-Feb-2014	20-Feb-2014	20-Feb-2014	21-Feb-2014	21-Feb-2014	20-Feb-2014
Nitrite by Kone (w)	19-Feb-2014	20-Feb-2014	19-Feb-2014	19-Feb-2014	19-Feb-2014	20-Feb-2014	19-Feb-2014	19-Feb-2014
SVOC MS (W) - Aqueous	24-Feb-2014	24-Feb-2014	21-Feb-2014	24-Feb-2014	21-Feb-2014	24-Feb-2014	24-Feb-2014	24-Feb-2014
Total EPH (aq)	25-Feb-2014	25-Feb-2014	25-Feb-2014	25-Feb-2014	25-Feb-2014	25-Feb-2014	25-Feb-2014	25-Feb-2014
VOC MS (W)	18-Feb-2014	18-Feb-2014	18-Feb-2014	18-Feb-2014	18-Feb-2014	18-Feb-2014	18-Feb-2014	18-Feb-2014

CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Chromatogram

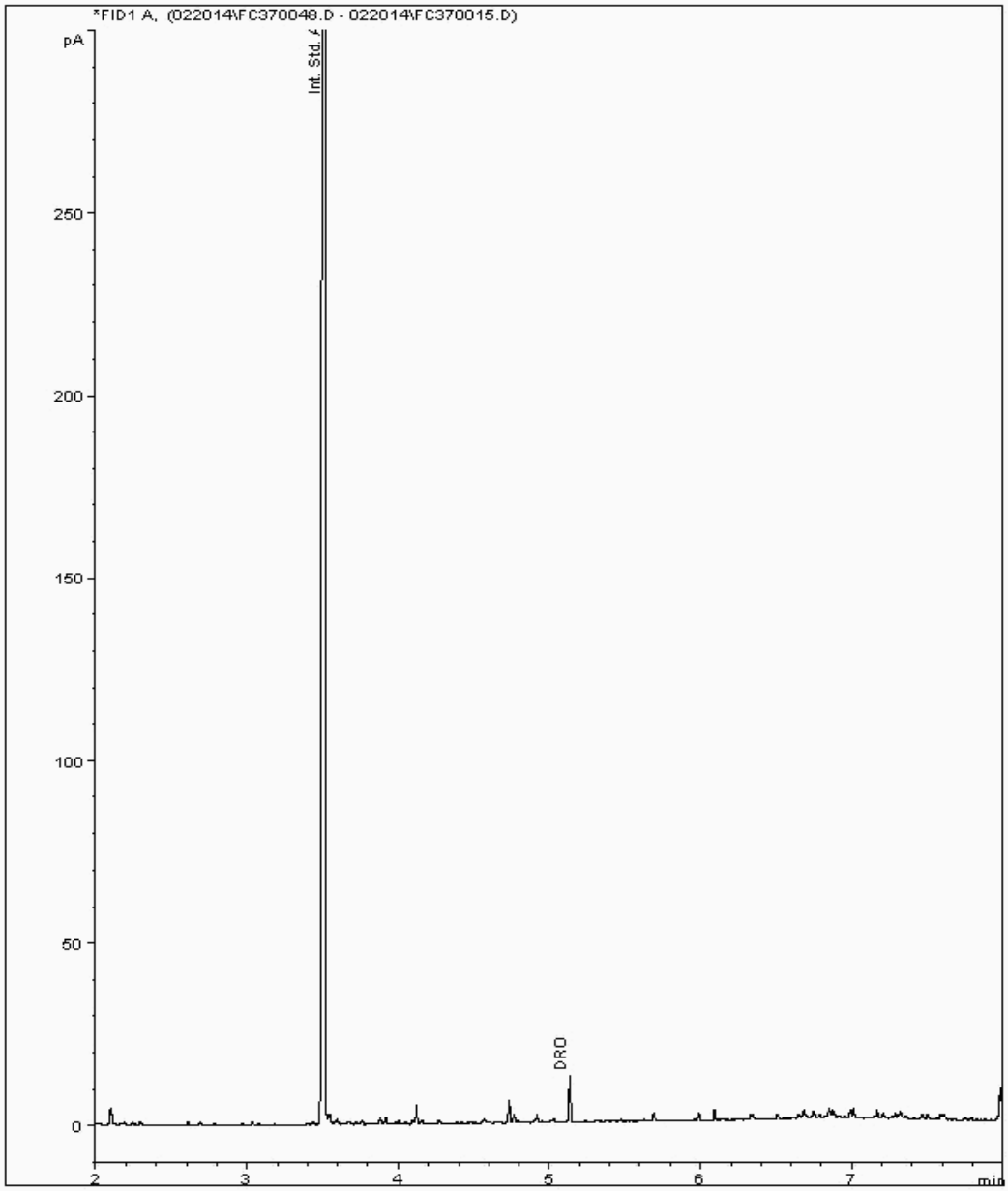
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8858367
Sample ID : BH3/6

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8430172-8858367
Date Acquired : 21/02/2014 05:19:19 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Chromatogram

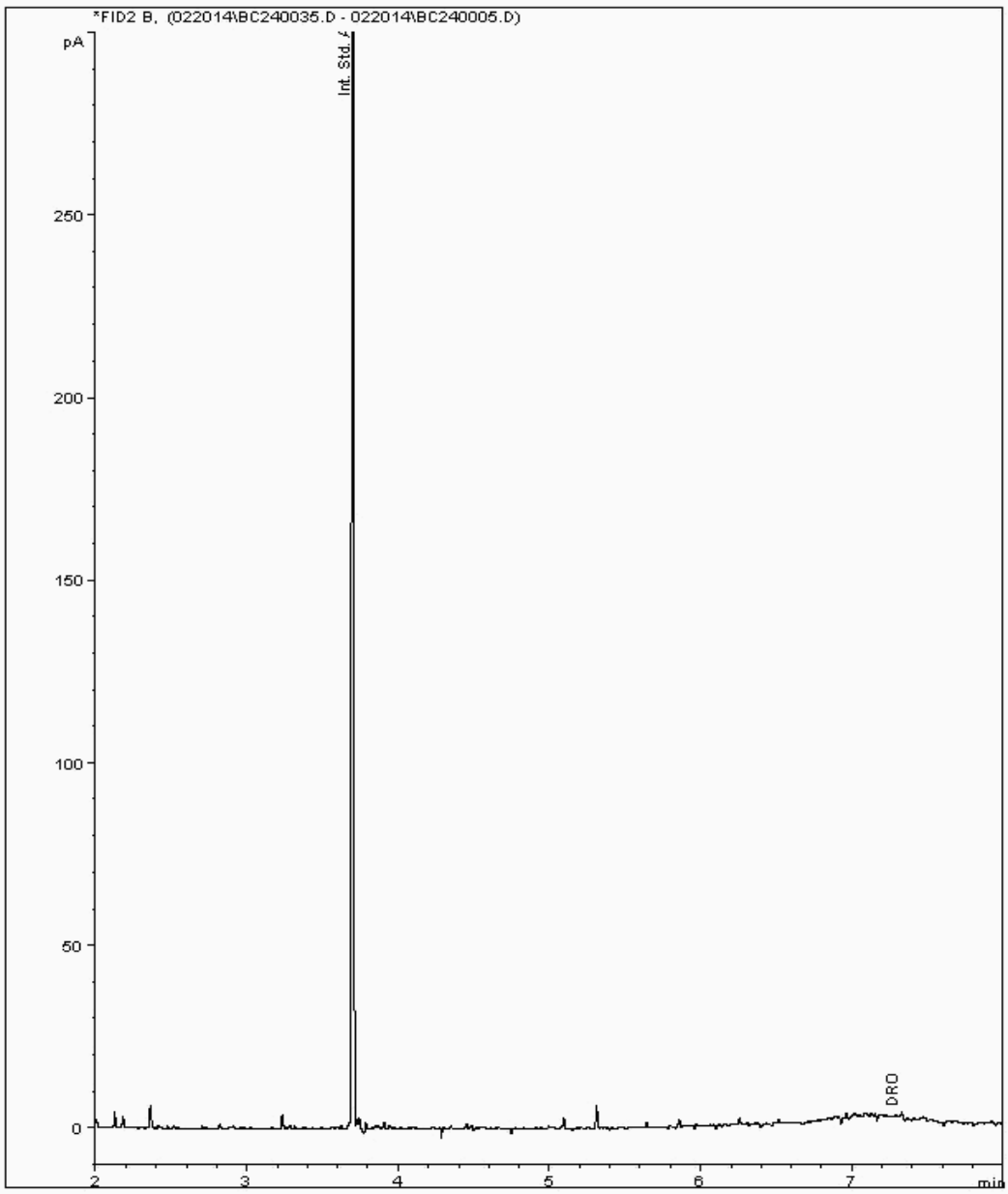
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8858374
Sample ID : BH3/3

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8430142-8858374
Date Acquired : 21/02/2014 03:47:02 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Chromatogram

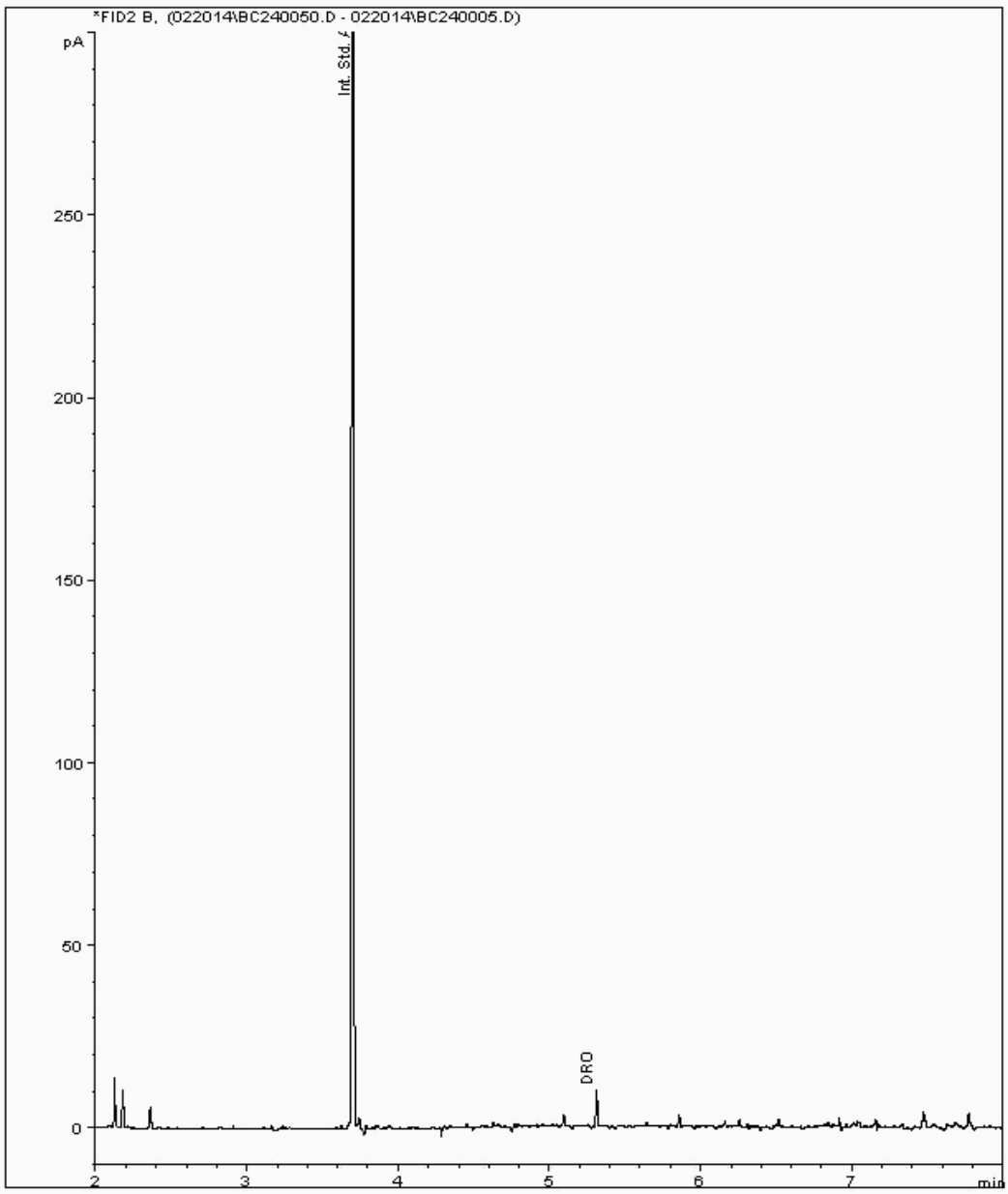
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8858380
Sample ID : NACW 229

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8430337-8858380
Date Acquired : 21/02/2014 09:24:49 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Chromatogram

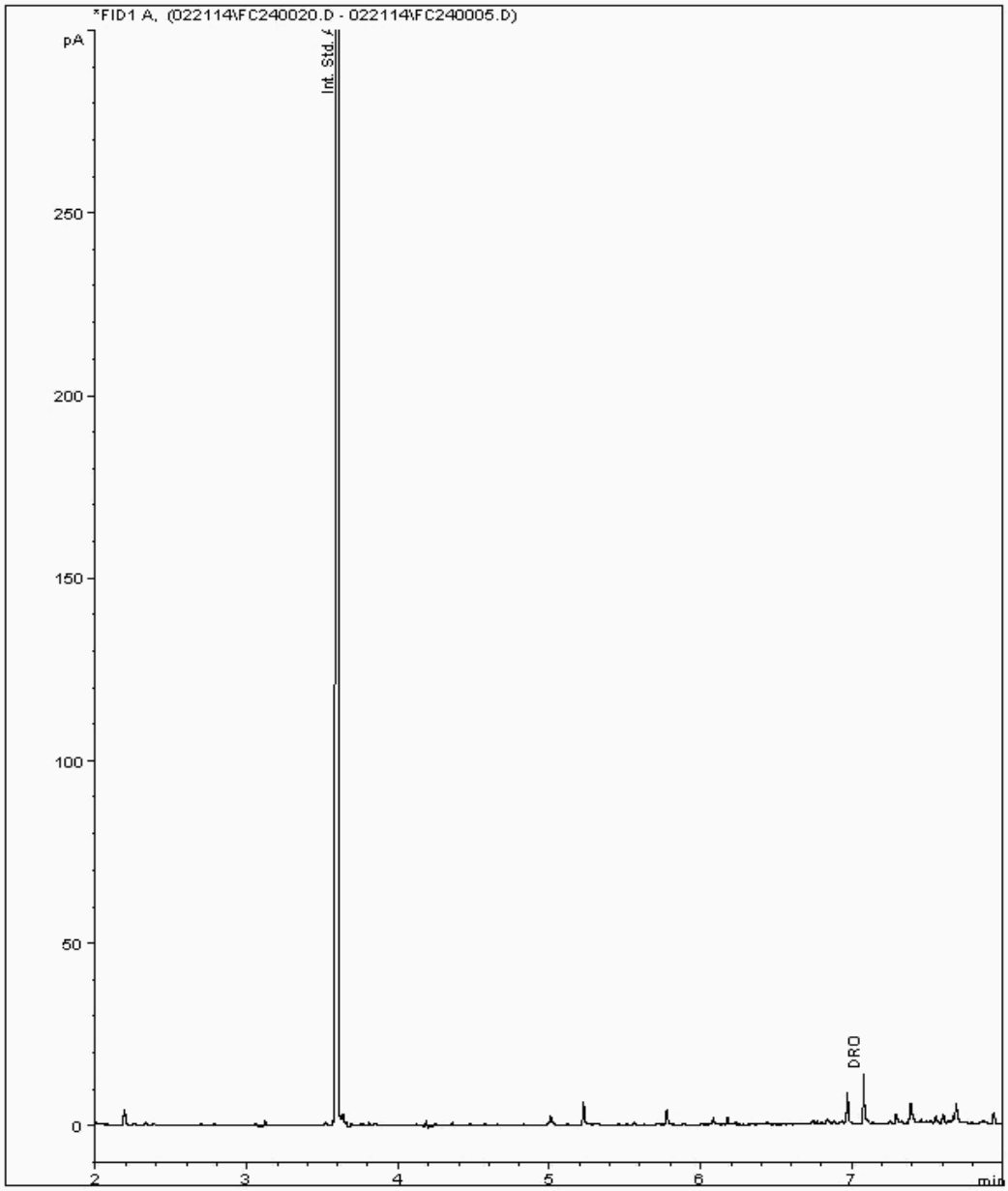
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8866654
Sample ID : BH3/5

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8430158-8866654
Date Acquired : 21/02/2014 21:53:59 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Chromatogram

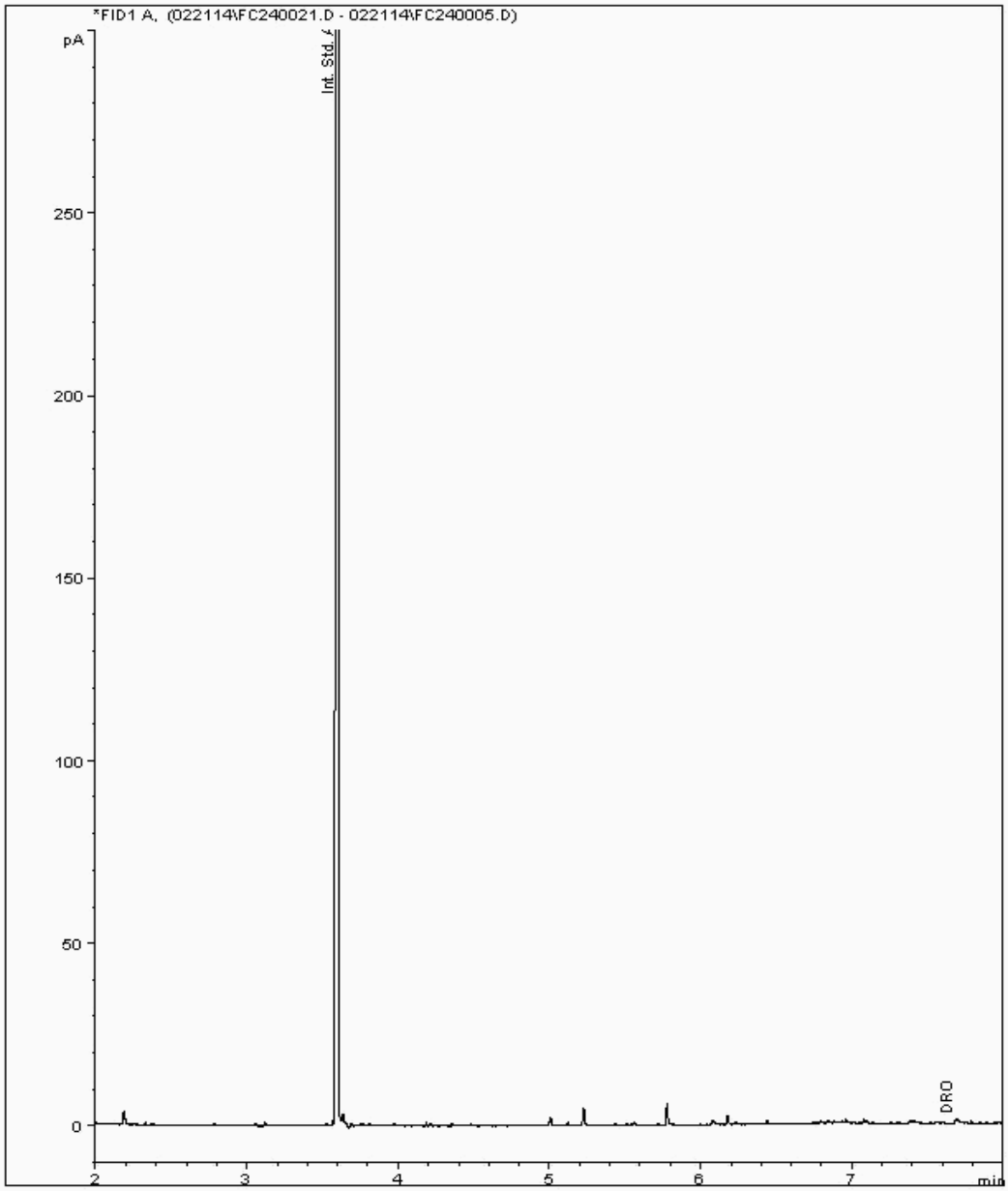
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8866953
Sample ID : BH3/9

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8430240-8866953
Date Acquired : 21/02/2014 22:16:08 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Chromatogram

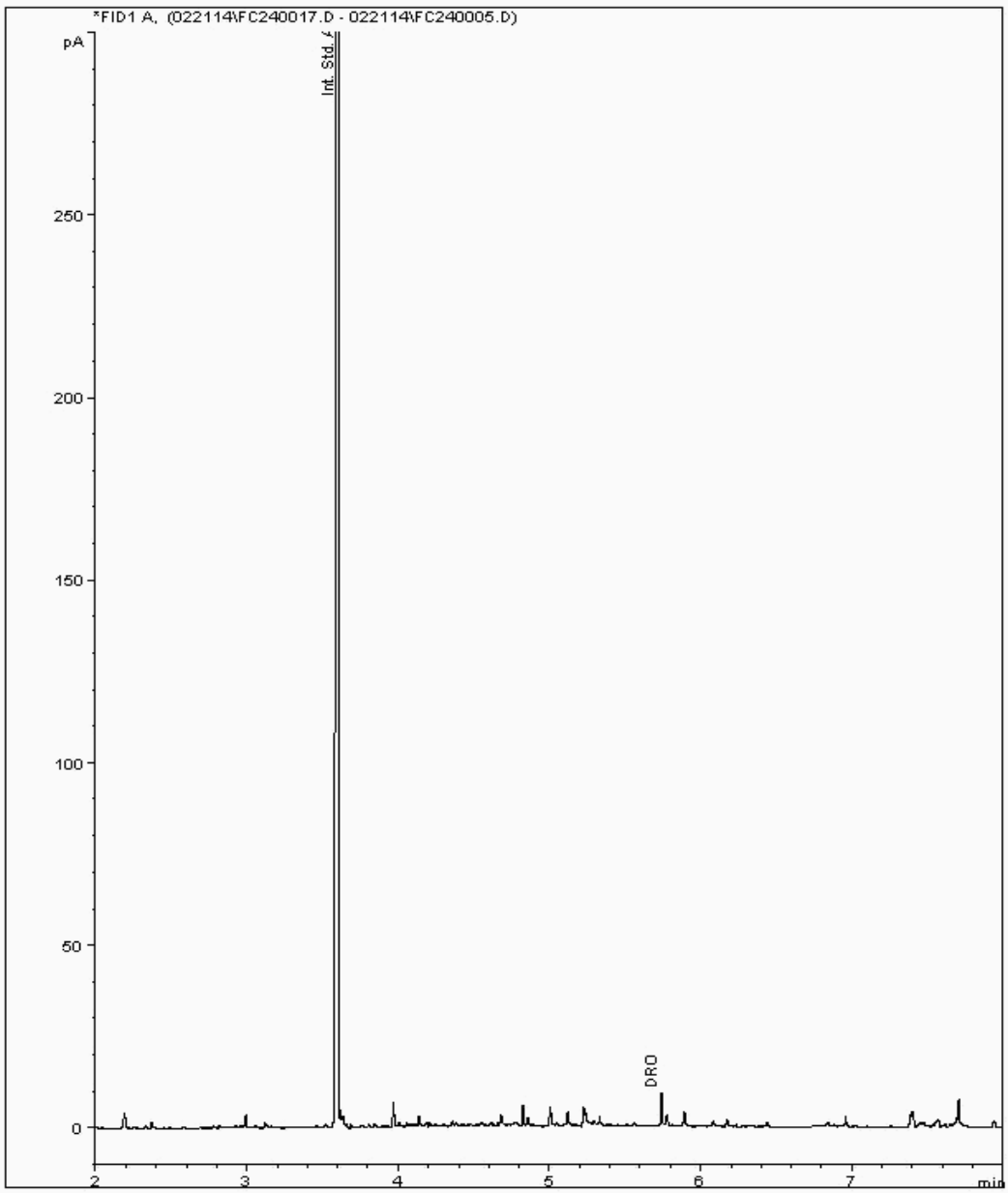
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8867064
Sample ID : NACW 219

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8430288-8867064
Date Acquired : 21/02/2014 20:47:23 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Chromatogram

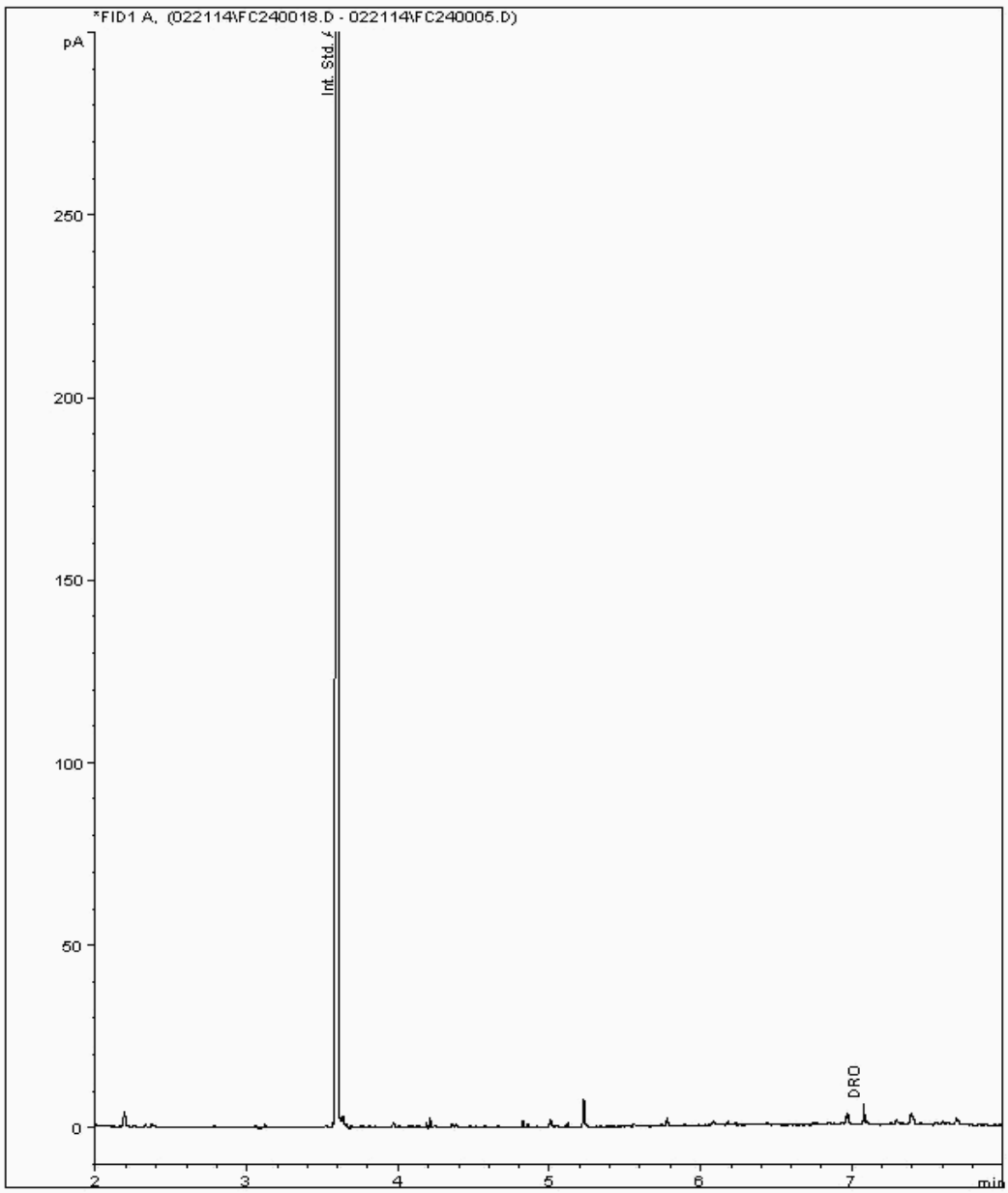
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 8867106
Sample ID : BH3/2

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8430124-8867106
Date Acquired : 21/02/2014 21:09:30 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

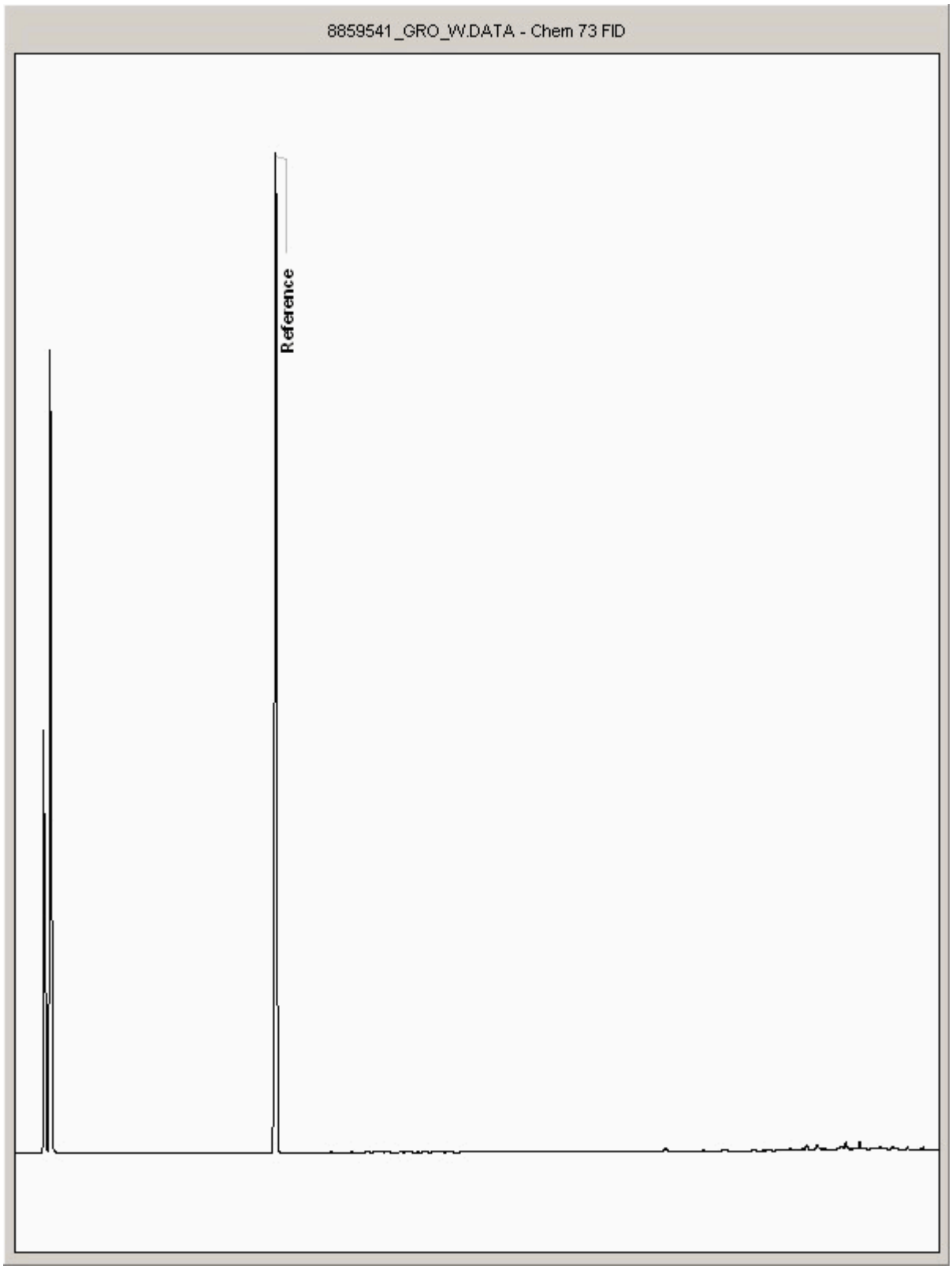
SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8849508
Sample ID : BH3/8

Depth :



CERTIFICATE OF ANALYSIS

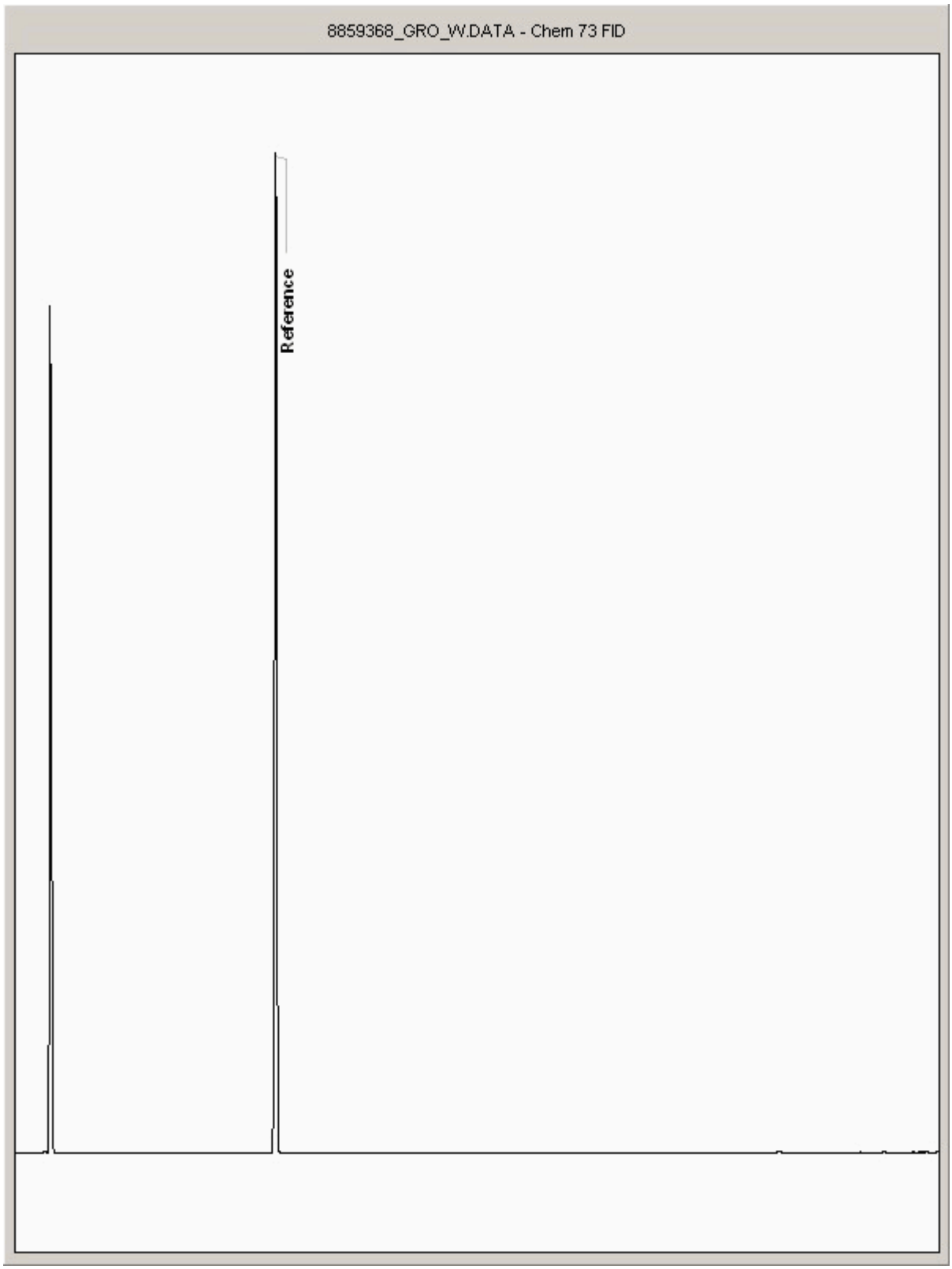
SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8859368
Sample ID : BH3/2

Depth :



CERTIFICATE OF ANALYSIS

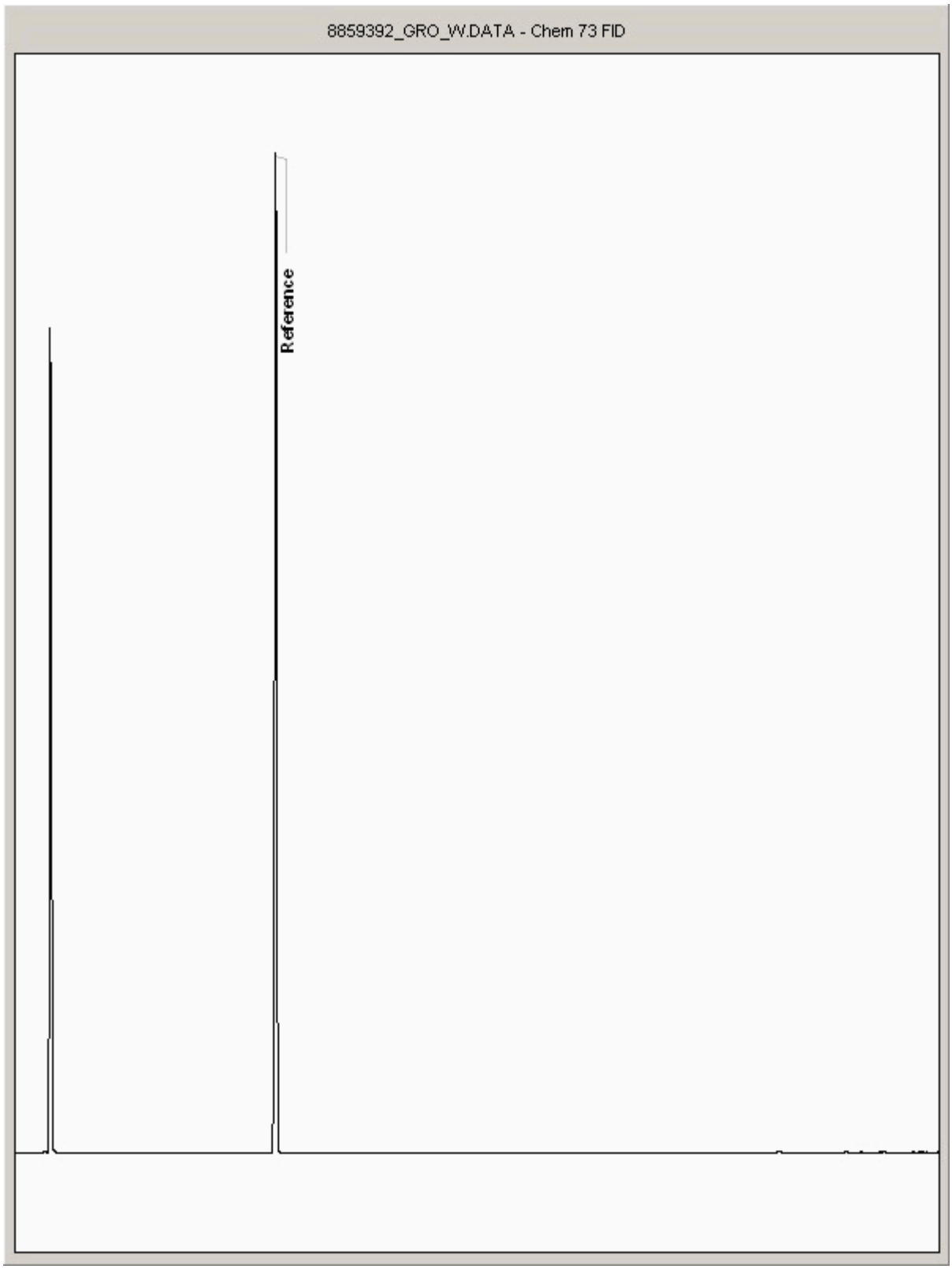
SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8859392
Sample ID : BH3/9

Depth :



CERTIFICATE OF ANALYSIS

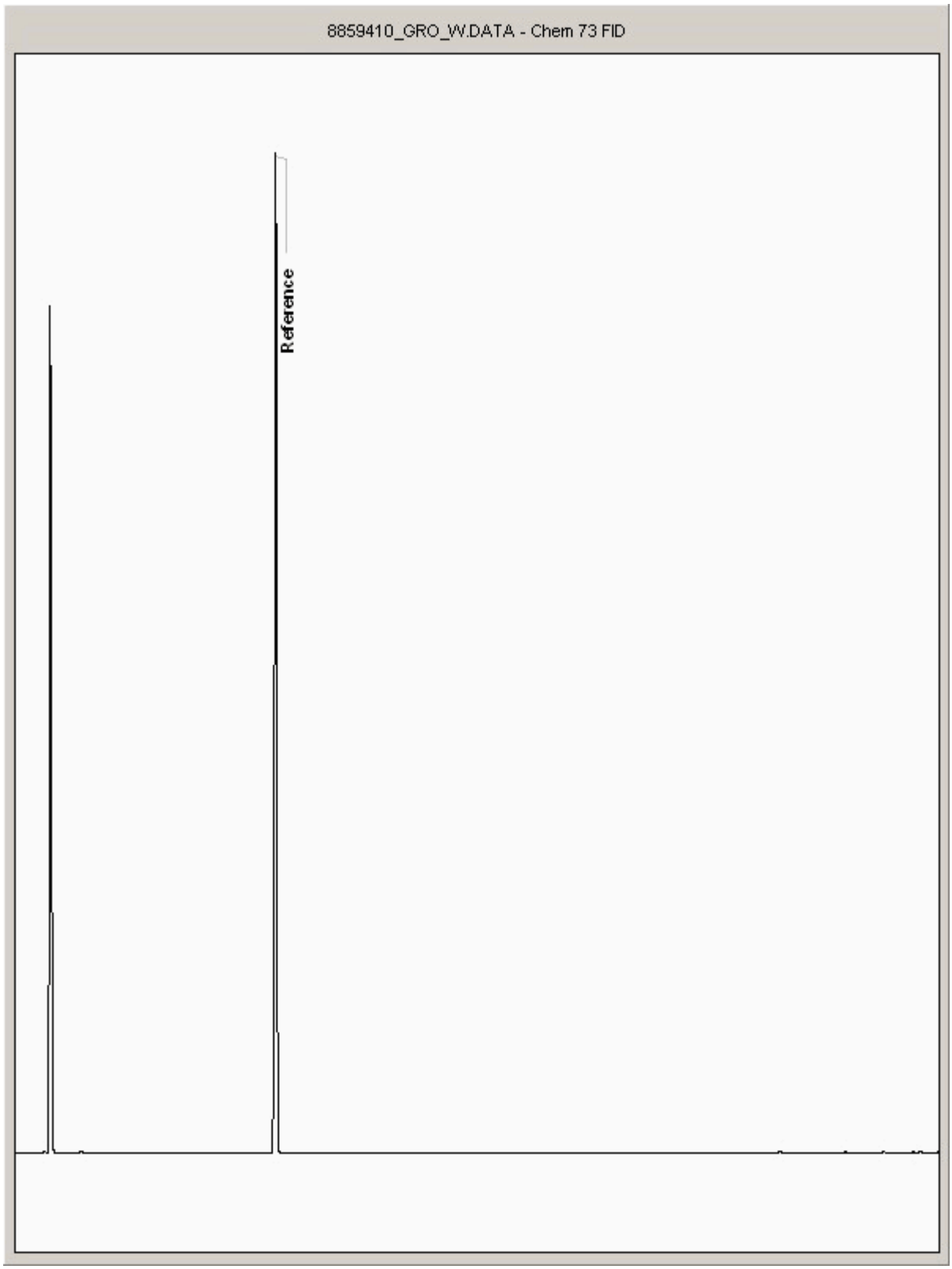
SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8859410
Sample ID : NACW 219

Depth :



CERTIFICATE OF ANALYSIS

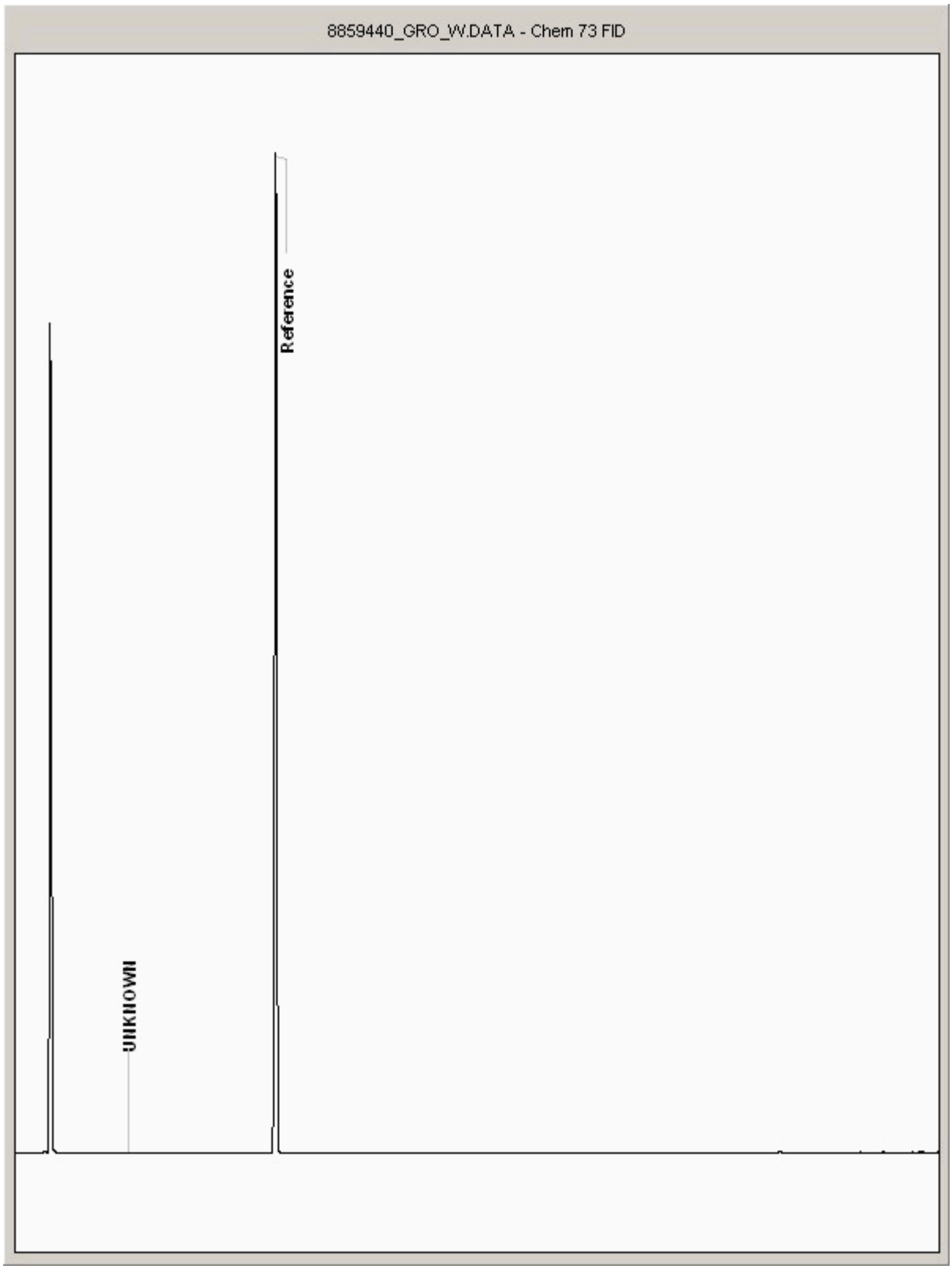
SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8859440
Sample ID : BH3/3

Depth :



CERTIFICATE OF ANALYSIS

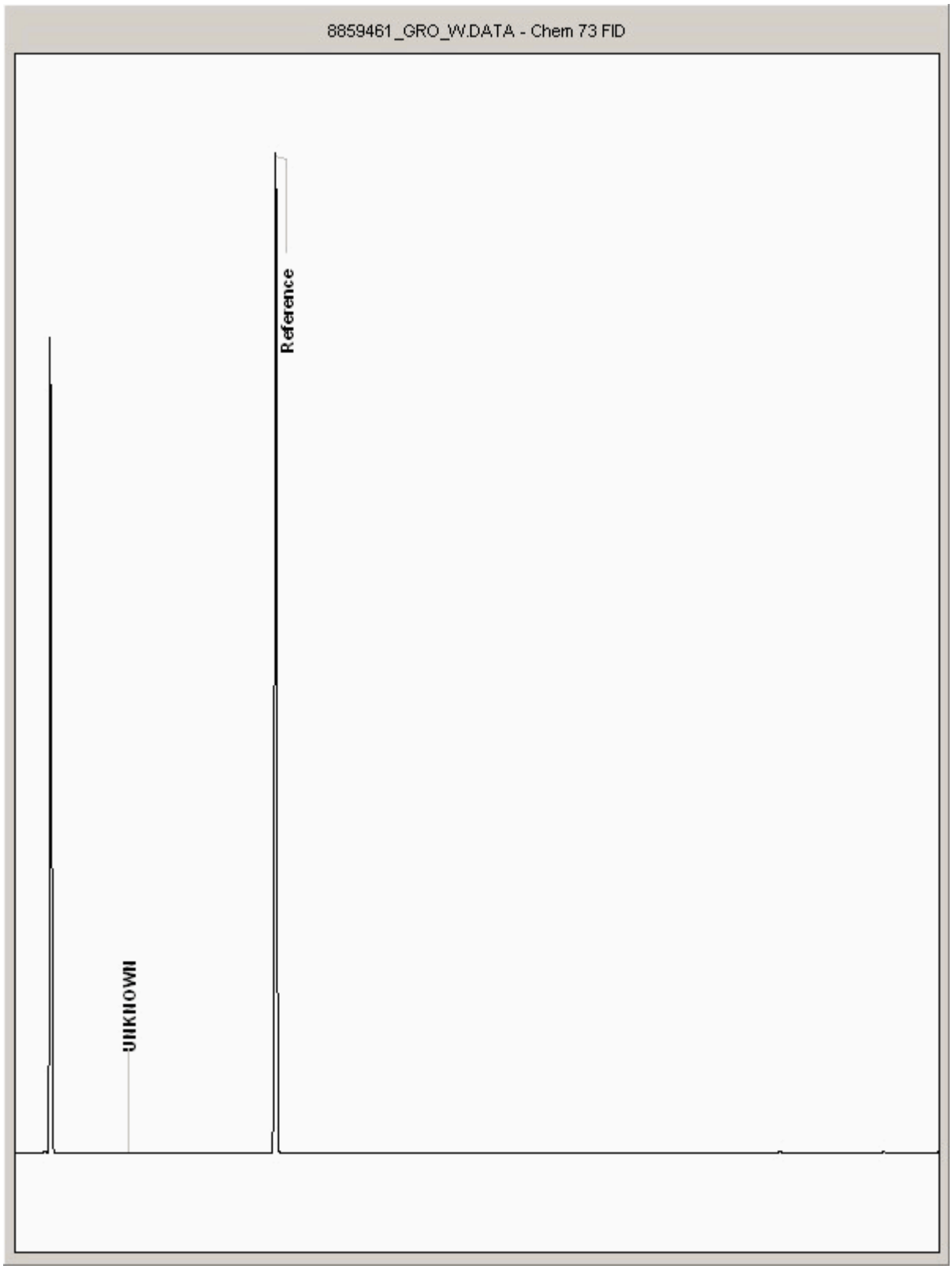
SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8859461
Sample ID : BH3/5

Depth :



CERTIFICATE OF ANALYSIS

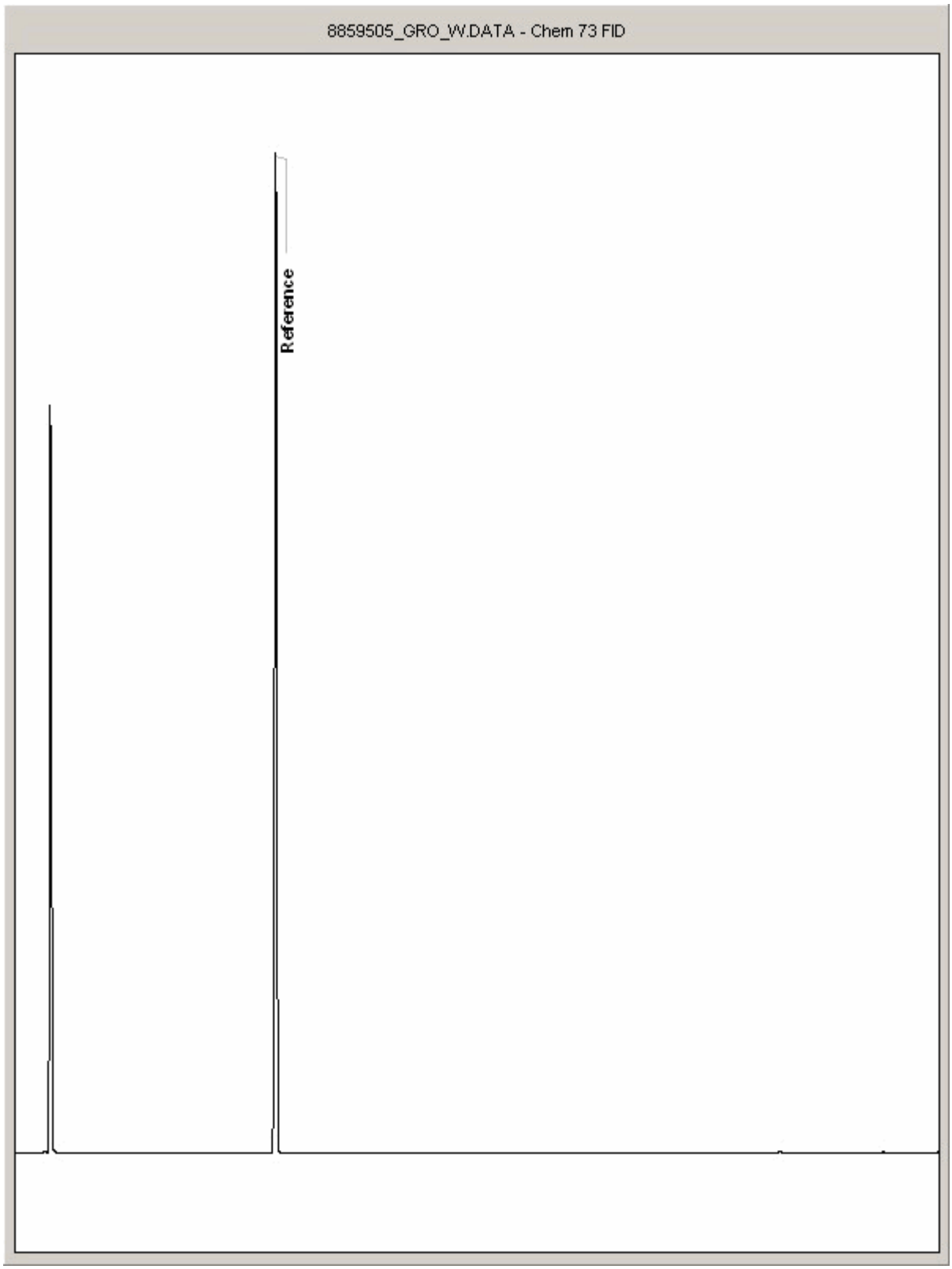
SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8859505
Sample ID : NACW 229

Depth :



CERTIFICATE OF ANALYSIS

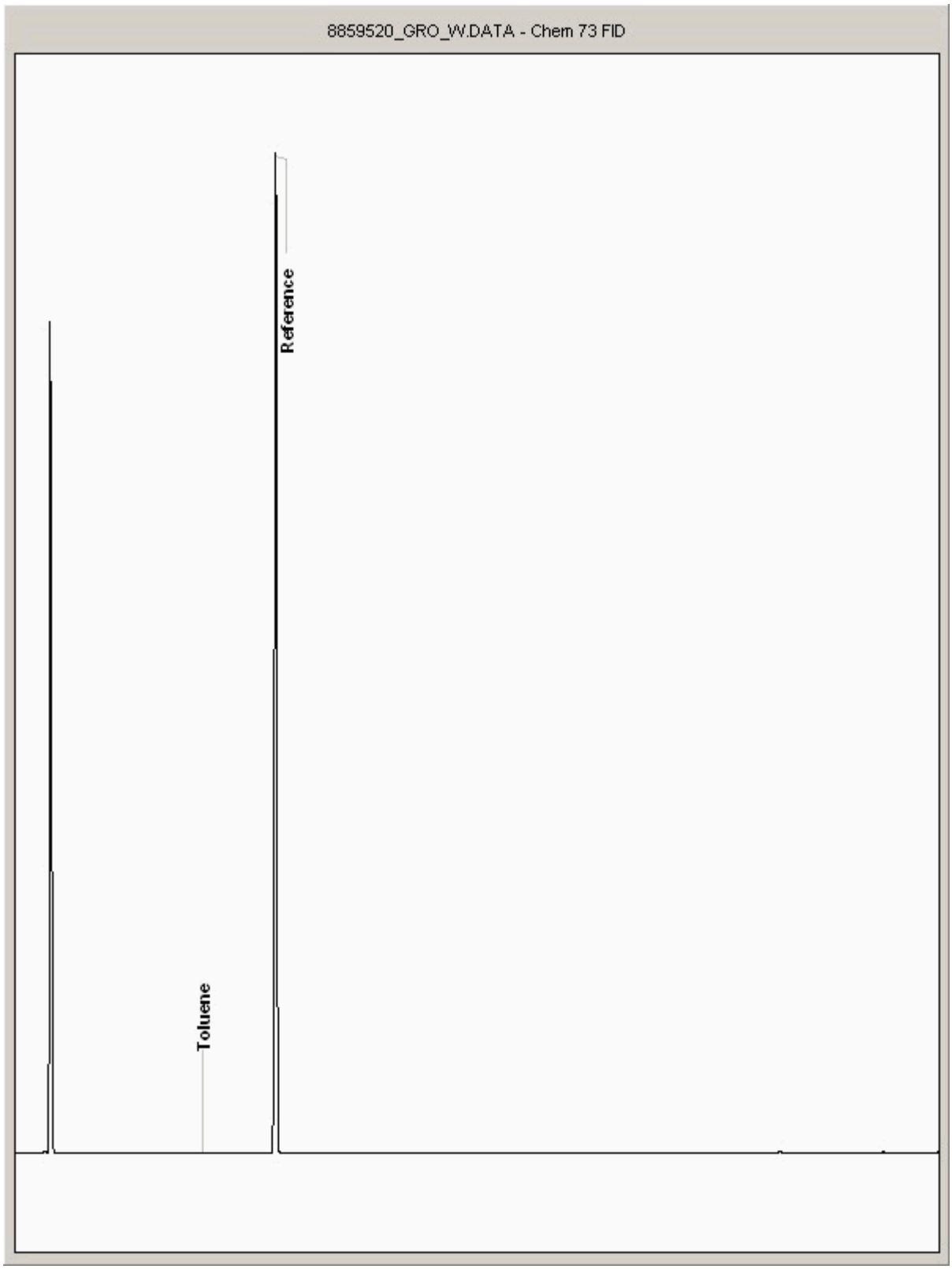
SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8859520
Sample ID : BH3/6

Depth :



CERTIFICATE OF ANALYSIS

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA Leach tests, flash point, ammonium as NH4 by the BRE method, VOC TICS, SVOC TICS, TOF-MS SCAN/SEARCH and TOF-MS TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for both soil jars, tubs and volatile jars. All waters and vials will be discarded 10 days after the analysis is completed (e-mailed). All material removed during an asbestos containing material screen and analysed for the presence of asbestos will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be screened in house for the presence of large asbestos containing material fragments/pieces. If no asbestos containing material is found this will be reported as 'no asbestos containing material detected'. If asbestos containing material is detected it will be removed and analysed by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If asbestos containing material is present no further analysis will be undertaken. At no point is the fibre content of the soil sample determined.

7. If no separate volatile sample is supplied by the client, the integrity of the data may be compromised if the laboratory is required to create a sub-sample from the bulk sample -similarly, if a headspace or sediment is present in the volatile sample. This will be flagged up as an invalid VOC on the test schedule or recorded on the log sheet.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. A table containing the date of analysis for each parameter is not routinely included with the report, but is available upon request.

12. Results relate only to the items tested

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 14).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. Our MCERTS accreditation for PAHs by GCMS applies to all product types apart from Kerosene, where naphthalene only is not
accredited.

19. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

20. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

21. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

22. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

23. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials -whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute themajor part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

24. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C4 -C10 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

SOLID MATRICES EXTRACTION SUMMARY

ANALYSIS	D/C OR WET	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
SOLVENT EXTRACTABLE MATTER	D&C	DCM	SOXTHERM	GRAVIMETRIC
CYCLOHEXANE EXT. MATTER	D&C	CYCLOHEXANE	SOXTHERM	GRAVIMETRIC
THIN LAYER CHROMATOGRAPHY	D&C	DCM	SOXTHERM	IATROSCAN
ELEMENTAL SULPHUR	D&C	DCM	SOXTHERM	HPLC
PHENOLS BY GCMS	WET	DCM	SOXTHERM	GCMS
HERBICIDES	D&C	HEXANE/ACETONE	SOXTHERM	GCMS
PESTICIDES	D&C	HEXANE/ACETONE	SOXTHERM	GCMS
EPH (DRO)	D&C	HEXANE/ACETONE	END OVER END	GC-FID
EPH (MIN OIL)	D&C	HEXANE/ACETONE	END OVER END	GC-FID
EPH (CLEANED UP)	D&C	HEXANE/ACETONE	END OVER END	GC-FID
EPH CWG BY GC	D&C	HEXANE/ACETONE	END OVER END	GC-FID
PCB TOT / PCB CON	D&C	HEXANE/ACETONE	END OVER END	GCMS
POLYAROMATIC HYDROCARBONS (MS)	WET	HEXANE/ACETONE	MICROWAVE TM218.	GCMS
C8-C40 (C9C40) EZ FLASH	WET	HEXANE/ACETONE	SHAKER	GC-EZ
POLYAROMATIC HYDROCARBONS RAPID GC	WET	HEXANE/ACETONE	SHAKER	GC-EZ
SEMI VOLATILE ORGANIC COMPOUNDS	WET	DCM/ACETONE	SONICATE	GCMS

LIQUID MATRICES EXTRACTION SUMMARY

ANALYSIS	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
PAH MS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GCMS
EPH	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
EPH CWG	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
MINERAL OIL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
PCB 7 CONGENERS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GCMS
PCB TOTAL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GCMS
SVOC	DCM	LIQUID/LIQUID SHAKE	GCMS
FREE SULPHUR	DCM	SOLID PHASE EXTRACTION	HPLC
PEST OCP/OPP	DCM	LIQUID/LIQUID SHAKE	GCMS
TRIAZINE HERBS	DCM	LIQUID/LIQUID SHAKE	GCMS
PHENOLS MS	DCM	SOLID PHASE EXTRACTION	GCMS
TPH by INFRARED (IR)	TCE	LIQUID/LIQUID SHAKE	HPLC
MINERAL OIL by IR	TCE	LIQUID/LIQUID SHAKE	HPLC
GLYCOLS	NONE	DIRECT INJECTION	GCMS

Identification of Asbestos in Bulk Materials

The results for asbestos identification for soil samples are obtained from possible Asbestos Containing Material, removed during the 'Screening of soils for Asbestos Containing Materials', which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -
Trace -Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in MDHS 100.

The identification of asbestos containing materials falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Last Updated : 2010/09/08

SDG:	140215-5	**Location:**	Phase 2-3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	261778
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	261534

Appendix
General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before presevation was performed
§	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -
Trace -Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

ALcontrol Laboratories

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email: mkt@alcontrol.com
Website: www.alcontrol.com

CWM Environmental Ltd
Nantyclaws Landfill Site
Llanddarg Road
Carmarthen
Carmarthenshire
SA32 8BG

Attention: Mike Lewis

CERTIFICATE OF ANALYSIS

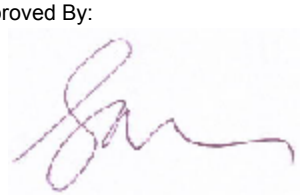
Date:	26 February 2014
Customer:	H_CWMENV_NAN
Sample Delivery Group (SDG):	140222-70
Your Reference:	
Location:	Phase 3
Report No:	261294

We received 1 sample on Saturday February 22, 2014 and 1 of these samples were scheduled for analysis which was completed on Wednesday February 26, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:



Sonia McWhan

Operations Manager

Alcontrol Laboratories is a trading division of ALcontrol UK Limited
Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No.

CERTIFICATE OF ANALYSIS

SDG:	140222-70	**Location:**	Phase 3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-2	**Customer:**	CWM Environmental Ltd	**Report Number:**	261294
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
8887509	SW206			21/02/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	140222-70	**Location:**	Phase 3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-2	**Customer:**	CWM Environmental Ltd	**Report Number:**	261294
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)			8887509
Customer Sample Reference			SW206
AGS Reference			
Depth (m)			
Container			1plastic (ALE221)
Suspended Solids	All	NDPs: 0 Tests: 1	X

CERTIFICATE OF ANALYSIS

SDG:	140222-70	**Location:**	Phase 3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-2	**Customer:**	CWM Environmental Ltd	**Report Number:**	261294
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

		Customer Sample R	SW206
		Depth (m)	.
		Sample Type	Water(GW/SW)
		Date Sampled	21/02/2014
		Sample Time	.
		Date Received	22/02/2014
		SDG Ref	140222-70
		Lab Sample No.(s)	8887509
		AGS Reference	
Component	**LOD/Units**	**Method**	
Suspended solids, Total	<2 mg/l	TM022	<2 #

CERTIFICATE OF ANALYSIS

SDG:	140222-70	**Location:**	Phase 3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-2	**Customer:**	CWM Environmental Ltd	**Report Number:**	261294
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM022	Method 2540D, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part120 1981;BS EN 872	Determination of total suspended solids in waters		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	140222-70	**Location:**	Phase 3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-2	**Customer:**	CWM Environmental Ltd	**Report Number:**	261294
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	8887509
Customer Sample Ref.	SW206
AGS Ref.	
Depth	
Type	LIQUID
Suspended Solids	26-Feb-2014

SDG:	140222-70	**Location:**	Phase 3	**Order Number:**	6488 L/F
Job:	H_CWMENV_NAN-2	**Customer:**	CWM Environmental Ltd	**Report Number:**	261294
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix
General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Holding time exceeded before sample received**
5	**Samples exceeded holding time before presevation was performed**
§	**Sampled on date not provided**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to sampled on date**
&	**Sample Holding Time exceeded - Late arrival of instructions.**

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -
Trace -Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

ALcontrol Laboratories

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CWM Environmental Ltd
Nantyclaws Landfill Site
Llanddarg Road
Carmarthen
Carmarthenshire
SA32 8BG

Attention: Mike Lewis

CERTIFICATE OF ANALYSIS

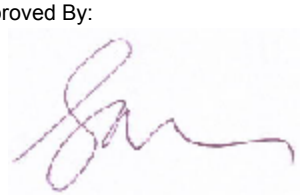
Date:	07 March 2014
Customer:	H_CWMENV_NAN
Sample Delivery Group (SDG):	140228-97
Your Reference:	
Location:	Phase 2-3
Report No:	262487

We received 6 samples on Friday February 28, 2014 and 6 of these samples were scheduled for analysis which was completed on Friday March 07, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:



Sonia McWhan

Operations Manager

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Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No.

CERTIFICATE OF ANALYSIS

SDG:	140228-97	**Location:**	Phase 2-3	**Order Number:**	6488L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	262487
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
8917237	CELL 5 SUMP			27/02/2014
8917238	CELL 6 SUMP			27/02/2014
8917240	CELL 7 SUMP			27/02/2014
8917233	CELL 1-2 SUMP			27/02/2014
8917235	CELL 3-4 SUMP			27/02/2014
8917241	UD4			27/02/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	140228-97	**Location:**	Phase 2-3	**Order Number:**	6488L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	262487
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			8917237	CELL 5 SUMP			0.5l glass bottle (AL
			8917238	CELL 6 SUMP			0.5l glass bottle (AL
			8917240	CELL 7 SUMP			0.5l glass bottle (AL
			8917233	CELL 1-2 SUMP			0.5l glass bottle (AL
			8917235	CELL 3-4 SUMP			0.5l glass bottle (AL
			8917241	UD4			1l Glass bottle (ALE
Acid Herbicides by LCQQQ (aq)	All	NDPs: 0 Tests: 1					X
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 5	X	X	X	X	X

CERTIFICATE OF ANALYSIS

SDG:	140228-97	**Location:**	Phase 2-3	**Order Number:**	6488L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	262487
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Customer Sample R	UD4
Depth (m)	.
Sample Type	Water(GW/SW)
Date Sampled	27/02/2014
Sample Time	.
Date Received	28/02/2014
SDG Ref	140228-97
Lab Sample No.(s)	8917241
AGS Reference	

Component	LOD/Units	Method	
MCPP (Mecoprop)	<0.04 µg/l	TM324	0.044

CERTIFICATE OF ANALYSIS

SDG:	140228-97	**Location:**	Phase 2-3	**Order Number:**	6488L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	262487
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	CELL 5 SUMP	CELL 6 SUMP	CELL 7 SUMP	CELL 1-2 SUMP	CELL 3-4 SUMP
			Depth (m)	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	27/02/2014	27/02/2014	27/02/2014	27/02/2014	27/02/2014
			Sample Time	.	.	.	.	.
			Date Received	28/02/2014	28/02/2014	28/02/2014	28/02/2014	28/02/2014
			SDG Ref	140228-97	140228-97	140228-97	140228-97	140228-97
			Lab Sample No.(s)	8917237	8917238	8917240	8917233	8917235
			AGS Reference					
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<4	<40	<8	<8	<4
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
2-Methylphenol (aq)	<1 µg/l	TM176		<4 #	<40 #	15.8 #	35.6 #	<4 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<4	<40	<8	<8	<4
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
4-Methylphenol (aq)	<1 µg/l	TM176		<4 #	2300 #	595 #	27.4 #	<4 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<4	<40	<8	<8	<4
Azobenzene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	10.5 #	<4 #
Acenaphthylene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Acenaphthene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Anthracene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		5.23 #	149 #	18 #	117 #	9.06 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #

CERTIFICATE OF ANALYSIS

SDG:	140228-97	**Location:**	Phase 2-3	**Order Number:**	6488L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	262487
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	CELL 5 SUMP	CELL 6 SUMP	CELL 7 SUMP	CELL 1-2 SUMP	CELL 3-4 SUMP
			Depth (m)	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	27/02/2014	27/02/2014	27/02/2014	27/02/2014	27/02/2014
			Sample Time	.	.	.	.	.
			Date Received	28/02/2014	28/02/2014	28/02/2014	28/02/2014	28/02/2014
			SDG Ref	140228-97	140228-97	140228-97	140228-97	140228-97
			Lab Sample No.(s)	8917237	8917238	8917240	8917233	8917235
			AGS Reference					
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Carbazole (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Chrysene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Dibenzofuran (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<20 #	<200 #	<40 #	<40 #	<20 #
Fluoranthene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Fluorene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<4	<40	<8	<8	<4
Phenol (aq)	<1 µg/l	TM176		<4	4490	254	<8	<4
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Hexachloroethane (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Nitrobenzene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Naphthalene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	12.1 #	<4 #
Isophorone (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<4	<40	<8	<8	<4
Phenanthrene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #
Pyrene (aq)	<1 µg/l	TM176		<4 #	<40 #	<8 #	<8 #	<4 #

CERTIFICATE OF ANALYSIS

SDG:	140228-97	**Location:**	Phase 2-3	**Order Number:**	6488L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	262487
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS		
TM324		Analysis of Acid Herbicides in Aqueous Sample by LCQQQ		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	140228-97	**Location:**	Phase 2-3	**Order Number:**	6488L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	262487
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	8917237	8917238	8917240	8917233	8917235	8917241
Customer Sample Ref.	CELL 5 SUMP	CELL 6 SUMP	CELL 7 SUMP	CELL 1-2 SUMP	CELL 3-4 SUMP	UD4
AGS Ref.						
Depth						
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Acid Herbicides by LCQQQ (aq)						04-Mar-2014
SVOC MS (W) - Aqueous	07-Mar-2014	07-Mar-2014	07-Mar-2014	07-Mar-2014	07-Mar-2014	

SDG:	140228-97	**Location:**	Phase 2-3	**Order Number:**	6488L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	262487
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix
General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before presevation was performed
§	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -
Trace -Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

ALcontrol Laboratories

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CWM Environmental Ltd
Nantyclaws Landfill Site
Llanddarg Road
Carmarthen
Carmarthenshire
SA32 8BG

Attention: Mike Lewis

CERTIFICATE OF ANALYSIS

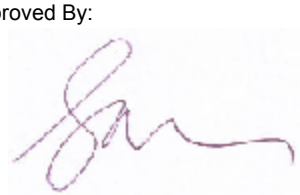
Date:	27 March 2014
Customer:	H_CWMENV_NAN
Sample Delivery Group (SDG):	140320-116
Your Reference:	
Location:	PHASE 2-3
Report No:	264702

We received 23 samples on Thursday March 20, 2014 and 23 of these samples were scheduled for analysis which was completed on Thursday March 27, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	140320-116	**Location:**	PHASE 2-3	**Order Number:**	6661 L/F
Job:	H_CWMENV_NAN-3	**Customer:**	CWM Environmental Ltd	**Report Number:**	264702
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
9013318	BH3/4			18/03/2014
9013321	BH208			18/03/2014
9013315	BH5/02			18/03/2014
9013299	CELL SUMP 5			19/03/2014
9013303	CELL SUMP 6			19/03/2014
9013304	CELL SUMP 7			19/03/2014
9013297	CELL SUMP 1/2			19/03/2014
9013298	CELL SUMP 3/4			19/03/2014
9013296	LEACHATE HOLDING LAGOON			19/03/2014
9013313	NACW203			18/03/2014
9013314	NACW205			18/03/2014
9013316	NACW212			18/03/2014
9013317	NACW228			18/03/2014
9013305	SW201			19/03/2014
9013306	SW202			19/03/2014
9013307	SW204			19/03/2014
9013308	SW205			19/03/2014
9013310	SW206			19/03/2014
9013311	SW207			19/03/2014
9013319	UD1			18/03/2014
9013323	UD3			18/03/2014
9013325	UD4			18/03/2014
9013326	UD5			18/03/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	140320-116	**Location:**	PHASE 2-3	**Order Number:**	6661 L/F
Job:	H_CWMENV_NAN-3	**Customer:**	CWM Environmental Ltd	**Report Number:**	264702
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			9013318	BH3/4			500ml Plastic (ALE2
			9013321	BH208			H2SO4 (ALE244)
			9013315	BH5/02			500ml Plastic (ALE2
			9013299	CELL SUMP 5			H2SO4 (ALE244)
			9013303	CELL SUMP 6			500ml Plastic (ALE2
			9013304	CELL SUMP 7			H2SO4 (ALE244)
			9013297	CELL SUMP 1/2			500ml Plastic (ALE2
			9013298	CELL SUMP 3/4			H2SO4 (ALE244)
			9013296	LEACHATE HOLDING LAGOON			500ml Plastic (ALE2
			9013313	NACW203			H2SO4 (ALE244)
			9013314	NACW205			500ml Plastic (ALE2
			9013316	NACW212			H2SO4 (ALE244)
			9013317	NACW228			500ml Plastic (ALE2
			9013305	SW201			H2SO4 (ALE244)
			9013306	SW202			500ml Plastic (ALE2
			9013307	SW204			H2SO4 (ALE244)
			9013308	SW205			500ml Plastic (ALE2
			9013310	SW206			H2SO4 (ALE244)
			9013311	SW207			500ml Plastic (ALE2
			9013319	UD1			H2SO4 (ALE244)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 23		X X X X X X X X X X X X X X X X X X X X X X X			
Anions by Kone (w)	All	NDPs: 0 Tests: 23	X X X X X X X X X X X X X X X X X X X X X X X				
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 23	X X X X X X X X X X X X X X X X X X X X X X X				
pH Value	All	NDPs: 0 Tests: 6					X X X X X X X
Suspended Solids	All	NDPs: 0 Tests: 6					X X X X X X X

CERTIFICATE OF ANALYSIS

SDG:	140320-116	**Location:**	PHASE 2-3	**Order Number:**	6661 L/F
Job:	H_CWMENV_NAN-3	**Customer:**	CWM Environmental Ltd	**Report Number:**	264702
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			9013323	UD3			500ml Plastic (ALE2
			9013325	UD4			H2SO4 (ALE244)
			9013326	UD5			500ml Plastic (ALE2
							H2SO4 (ALE244)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 23					
				X			X
				X			X
Anions by Kone (w)	All	NDPs: 0 Tests: 23					
			X				X
				X			
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 23					
			X				X
				X			

CERTIFICATE OF ANALYSIS

SDG:	140320-116	**Location:**	PHASE 2-3	**Order Number:**	6661 L/F
Job:	H_CWMENV_NAN-3	**Customer:**	CWM Environmental Ltd	**Report Number:**	264702
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/4	BH208	BH5/02	CELL SUMP 5	CELL SUMP 6	CELL SUMP 7
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	18/03/2014	18/03/2014	18/03/2014	19/03/2014	19/03/2014	19/03/2014
			Sample Time	.	.	.	.	.	.
			Date Received	20/03/2014	20/03/2014	20/03/2014	20/03/2014	20/03/2014	20/03/2014
			SDG Ref	140320-116	140320-116	140320-116	140320-116	140320-116	140320-116
			Lab Sample No.(s)	9013318	9013321	9013315	9013299	9013303	9013304
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	<0.2 #	<0.2 #	1390 #	1600 #	1290 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.285 #	0.444 #	0.44 #	19.4 #	16.8 #	15.4 #
Chloride	<2 mg/l	TM184		14.7 #	15.4 #	19.7 #	3830 #	1870 #	2000 #

CERTIFICATE OF ANALYSIS

SDG:	140320-116	**Location:**	PHASE 2-3	**Order Number:**	6661 L/F
Job:	H_CWMENV_NAN-3	**Customer:**	CWM Environmental Ltd	**Report Number:**	264702
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	CELL SUMP 1/2	CELL SUMP 3/4	LEACHATE HOLDING LAGOON	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	19/03/2014	19/03/2014	19/03/2014	18/03/2014	18/03/2014	18/03/2014
			Sample Time	.	.	.	.	.	.
			Date Received	20/03/2014	20/03/2014	20/03/2014	20/03/2014	20/03/2014	20/03/2014
			SDG Ref	140320-116	140320-116	140320-116	140320-116	140320-116	140320-116
			Lab Sample No.(s)	9013297	9013298	9013296	9013313	9013314	9013316
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		2590 #	1390 #	1050 #	<0.2 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		42 #	19.7 #	13.3 #	0.457 #	0.444 #	0.226 #
Chloride	<2 mg/l	TM184		11400 #	4530 #	1840 #	20.9 #	18.4 #	29.6 #

CERTIFICATE OF ANALYSIS

SDG:	140320-116	**Location:**	PHASE 2-3	**Order Number:**	6661 L/F
Job:	H_CWMENV_NAN-3	**Customer:**	CWM Environmental Ltd	**Report Number:**	264702
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW228	SW201	SW202	SW204	SW205	SW206
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	18/03/2014	19/03/2014	19/03/2014	19/03/2014	19/03/2014	19/03/2014
			Sample Time	.	.	.	.	.	.
			Date Received	20/03/2014	20/03/2014	20/03/2014	20/03/2014	20/03/2014	20/03/2014
			SDG Ref	140320-116	140320-116	140320-116	140320-116	140320-116	140320-116
			Lab Sample No.(s)	9013317	9013305	9013306	9013307	9013308	9013310
			AGS Reference						
Suspended solids, Total	<2 mg/l	TM022			12 #	11 #	3.5 #	23.5 #	<2 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	0.295 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.296 #	0.343 #	0.266 #	0.185 #	0.26 #	0.134 #
Chloride	<2 mg/l	TM184		43.9 #	30.2 #	21 #	14.4 #	20.2 #	22.9 #
pH	<1 pH Units	TM256			7.82 #	8.01 #	7.98 #	8.09 #	7.54 #

CERTIFICATE OF ANALYSIS

SDG:	140320-116	**Location:**	PHASE 2-3	**Order Number:**	6661 L/F
Job:	H_CWMENV_NAN-3	**Customer:**	CWM Environmental Ltd	**Report Number:**	264702
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW207	UD1	UD3	UD4	UD5
			Depth (m)	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	19/03/2014	18/03/2014	18/03/2014	18/03/2014	18/03/2014
			Sample Time	.	.	.	.	.
			Date Received	20/03/2014	20/03/2014	20/03/2014	20/03/2014	20/03/2014
			SDG Ref	140320-116	140320-116	140320-116	140320-116	140320-116
			Lab Sample No.(s)	9013311	9013319	9013323	9013325	9013326
			AGS Reference					
Suspended solids, Total	<2 mg/l	TM022		52 #				
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.256 #	0.463 #	0.357 #	0.387 #	0.301 #
Chloride	<2 mg/l	TM184		21.6 #	28.7 #	16.2 #	13.1 #	11.8 #
pH	<1 pH Units	TM256		8.02 #				

CERTIFICATE OF ANALYSIS

SDG:	140320-116	**Location:**	PHASE 2-3	**Order Number:**	6661 L/F
Job:	H_CWMENV_NAN-3	**Customer:**	CWM Environmental Ltd	**Report Number:**	264702
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM022	Method 2540D, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part120 1981;BS EN 872	Determination of total suspended solids in waters		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM120	Method 2510B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part 9:1970	Determination of Electrical Conductivity using a Conductivity Meter		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	140320-116	**Location:**	PHASE 2-3	**Order Number:**	6661 L/F
Job:	H_CWMENV_NAN-3	**Customer:**	CWM Environmental Ltd	**Report Number:**	264702
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	9013321	9013318	9013315	9013299	9013303	9013304	9013297	9013298	9013296	9013313
Customer Sample Ref.	BH208	BH3/4	BH5/02	CELL SUMP 5	CELL SUMP 6	CELL SUMP 7	CELL SUMP 1/2	CELL SUMP 3/4	LEACHATE HOLDING LAGOON	NACW203
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	24-Mar-2014	24-Mar-2014	24-Mar-2014	27-Mar-2014	27-Mar-2014	27-Mar-2014	27-Mar-2014	27-Mar-2014	27-Mar-2014	24-Mar-2014
Anions by Kone (w)	27-Mar-2014	27-Mar-2014	27-Mar-2014	26-Mar-2014	26-Mar-2014	26-Mar-2014	26-Mar-2014	26-Mar-2014	26-Mar-2014	27-Mar-2014
Conductivity (at 20 deg.C)	24-Mar-2014	24-Mar-2014	24-Mar-2014	25-Mar-2014	25-Mar-2014	25-Mar-2014	25-Mar-2014	25-Mar-2014	25-Mar-2014	24-Mar-2014

Lab Sample No(s)	9013314	9013316	9013317	9013305	9013306	9013307	9013308	9013310	9013311	9013319
Customer Sample Ref.	NACW205	NACW212	NACW228	SW201	SW202	SW204	SW205	SW206	SW207	UD1
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	24-Mar-2014	24-Mar-2014	24-Mar-2014	24-Mar-2014	24-Mar-2014	24-Mar-2014	24-Mar-2014	24-Mar-2014	24-Mar-2014	24-Mar-2014
Anions by Kone (w)	27-Mar-2014	27-Mar-2014	27-Mar-2014	27-Mar-2014	27-Mar-2014	27-Mar-2014	27-Mar-2014	27-Mar-2014	27-Mar-2014	27-Mar-2014
Conductivity (at 20 deg.C)	24-Mar-2014	24-Mar-2014	24-Mar-2014	24-Mar-2014	24-Mar-2014	24-Mar-2014	25-Mar-2014	24-Mar-2014	24-Mar-2014	24-Mar-2014
pH Value				25-Mar-2014	24-Mar-2014	24-Mar-2014	24-Mar-2014	24-Mar-2014	24-Mar-2014	
Suspended Solids				24-Mar-2014	24-Mar-2014	24-Mar-2014	24-Mar-2014	24-Mar-2014	24-Mar-2014	

Lab Sample No(s)	9013323	9013325	9013326
Customer Sample Ref.	UD3	UD4	UD5
AGS Ref.			
Depth			
Type	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	24-Mar-2014	24-Mar-2014	24-Mar-2014
Anions by Kone (w)	27-Mar-2014	27-Mar-2014	27-Mar-2014
Conductivity (at 20 deg.C)	24-Mar-2014	24-Mar-2014	24-Mar-2014

SDG:	140320-116	**Location:**	PHASE 2-3	**Order Number:**	6661 L/F
Job:	H_CWMENV_NAN-3	**Customer:**	CWM Environmental Ltd	**Report Number:**	264702
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix
General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before presevation was performed
§	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -
Trace -Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

ALcontrol Laboratories

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Website: www.alcontrol.com

CWM Environmental Ltd
Nantyclaws Landfill Site
Llanddarg Road
Carmarthen
Carmarthenshire
SA32 8BG

Attention: Mike Lewis

CERTIFICATE OF ANALYSIS

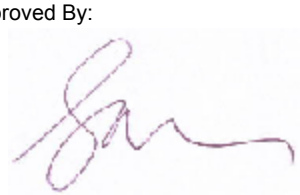
Date:	23 April 2014
Customer:	H_CWMENV_NAN
Sample Delivery Group (SDG):	140410-38
Your Reference:	
Location:	Phase 2-3
Report No:	267624

We received 25 samples on Thursday April 10, 2014 and 25 of these samples were scheduled for analysis which was completed on Wednesday April 23, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:



Sonia McWhan

Operations Manager

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Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No.

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
9122330	BH3/2			08/04/2014
9122331	BH3/3			08/04/2014
9122323	BH3/4			08/04/2014
9122322	BH3/5			08/04/2014
9122332	BH3/6			08/04/2014
9122333	BH3/8			08/04/2014
9122334	BH3/9			08/04/2014
9122335	BH5/2			08/04/2014
9122315	BH208			09/04/2014
9122324	NACW203			08/04/2014
9122325	NACW205			08/04/2014
9122326	NACW212			08/04/2014
9122327	NACW219			08/04/2014
9122328	NACW228			09/04/2014
9122329	NACW229			09/04/2014
9122307	SW201			09/04/2014
9122308	SW202			09/04/2014
9122309	SW204			09/04/2014
9122311	SW205			09/04/2014
9122313	SW206			09/04/2014
9122314	SW207			09/04/2014
9122317	UD1			09/04/2014
9122318	UD3			09/04/2014
9122320	UD4			09/04/2014
9122321	UD5			09/04/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)	9122330	9122331	9122323	9122322	9122332	9122333	9122334	9122335
Customer Sample Reference	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8	BH3/9	BH5/2
AGS Reference								
Depth (m)								
Container	1l Glass bottle (ALE)	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE)	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE)	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE)	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE)	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE)	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE)	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE)	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE)	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE)	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)
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Acid Herbicides by LCQQQ (aq)	All	NDPs: 0 Tests: 25	X					X					X					X					X					X					X					X					X					X				
Alkalinity as CaCO3	All	NDPs: 0 Tests: 25		X					X					X					X					X					X					X					X					X					X			
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 25			X					X					X					X					X					X					X					X					X					X		
Anions by Kone (w)	All	NDPs: 0 Tests: 25		X					X					X					X					X					X					X					X					X					X			
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 25		X					X					X					X					X					X					X					X					X					X			
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 25		X					X					X					X					X					X					X					X					X					X			
EPH (DRO) (C10-C40) Aqueous (W)	All	NDPs: 0 Tests: 25	X					X					X					X					X					X					X					X					X					X				
GRO by GC-FID (W)	All	NDPs: 0 Tests: 25					X				X				X				X				X				X				X				X				X				X				X				X
Metals by iCap-OES Dissolved (W)	All	NDPs: 0 Tests: 25		X					X					X					X					X					X					X					X					X					X			
Nitrite by Kone (w)	All	NDPs: 0 Tests: 25			X					X					X					X					X					X					X					X					X					X		
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 25	X					X					X					X					X					X					X					X					X					X			
Total EPH (aq)	All	NDPs: 0 Tests: 25	X					X					X					X					X					X					X					X					X					X			
VOC MS (W)	All	NDPs: 0 Tests: 25					X				X				X				X				X				X				X				X				X				X				X				X

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

Lab Sample No(s)	9122315	9122324	9122325	9122326	9122327	9122328	9122329	9122307
Customer Sample Reference	BH208	NACW203	NACW205	NACW212	NACW219	NACW228	NACW229	SW201
AGS Reference								
Depth (m)								
Container	1l Glass bottle (ALE)	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE)	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE)	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE)	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE)	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE)	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE)	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE)	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)
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Acid Herbicides by LCQQQ (aq)	All	NDPs: 0 Tests: 25	X					X					X					X					X					X					X					X				
Alkalinity as CaCO3	All	NDPs: 0 Tests: 25		X					X					X					X					X					X					X					X				
Alkalinity Filtered as CaCO3	All	NDPs: 0 Tests: 6																																							X				
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 25			X					X					X					X					X					X					X					X				
Anions by Kone (w)	All	NDPs: 0 Tests: 25		X					X					X					X					X					X					X					X				
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 25		X					X					X					X					X					X					X					X				
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 25		X					X					X					X					X					X					X					X				
EPH (DRO) (C10-C40) Aqueous (W)	All	NDPs: 0 Tests: 25	X					X					X					X					X					X					X					X				
GRO by GC-FID (W)	All	NDPs: 0 Tests: 25				X				X					X					X					X					X					X					X	
Ionic Balance	All	NDPs: 0 Tests: 6																																							X				
Metals by iCap-OES Dissolved (W)	All	NDPs: 0 Tests: 25		X					X					X					X					X					X					X					X				
Nitrite by Kone (w)	All	NDPs: 0 Tests: 25			X					X					X					X					X					X					X					X			
pH Value	All	NDPs: 0 Tests: 6																																							X				
Suspended Solids	All	NDPs: 0 Tests: 6																																							X				
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 25	X					X					X					X					X					X					X					X				

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
Total EPH (aq)	All	NDPs: 0 Tests: 25	9122315	BH208			1l Glass bottle (ALE)
			9122324	NACW203			1l Glass bottle (ALE)
			9122325	NACW205			1l Glass bottle (ALE)
			9122326	NACW212			1l Glass bottle (ALE)
			9122327	NACW219			1l Glass bottle (ALE)
			9122328	NACW228			1l Glass bottle (ALE)
			9122329	NACW229			1l Glass bottle (ALE)
			9122307	SW201			1l Glass bottle (ALE)
Total Organic and Inorganic Carbon	All	NDPs: 0 Tests: 6					1plastic (ALE221)
							1plastic (ALE221)
							1plastic (ALE221)
							1plastic (ALE221)
							1plastic (ALE221)
							1plastic (ALE221)
							1plastic (ALE221)
			9122329	NACW229			1plastic (ALE221)
VOC MS (W)	All	NDPs: 0 Tests: 25					H2SO4 (ALE244)
							H2SO4 (ALE244)
							H2SO4 (ALE244)
							H2SO4 (ALE244)
							H2SO4 (ALE244)
							H2SO4 (ALE244)
							H2SO4 (ALE244)
			9122329	NACW229			H2SO4 (ALE244)
							NaOH (ALE245)
							NaOH (ALE245)
							NaOH (ALE245)
							NaOH (ALE245)
							NaOH (ALE245)
							NaOH (ALE245)
							NaOH (ALE245)
			9122329	NACW229			NaOH (ALE245)
							Vial (ALE297)
							Vial (ALE297)
							Vial (ALE297)
							Vial (ALE297)
							Vial (ALE297)
							Vial (ALE297)
							Vial (ALE297)
			9122329	NACW229			Vial (ALE297)
							1l Glass bottle (ALE)
							1plastic (ALE221)
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
9122308	SW202			1l Glass bottle (ALE)
				1lplastic (ALE221)
				H2SO4 (ALE244)
				NaOH (ALE245)
				Vial (ALE297)
9122309	SW204			1l Glass bottle (ALE)
				1lplastic (ALE221)
				H2SO4 (ALE244)
				NaOH (ALE245)
				Vial (ALE297)
9122311	SW205			1l Glass bottle (ALE)
				1lplastic (ALE221)
				H2SO4 (ALE244)
				NaOH (ALE245)
				Vial (ALE297)
9122313	SW206			1l Glass bottle (ALE)
				1lplastic (ALE221)
				H2SO4 (ALE244)
				NaOH (ALE245)
				Vial (ALE297)
9122314	SW207			1l Glass bottle (ALE)
				1lplastic (ALE221)
				H2SO4 (ALE244)
				NaOH (ALE245)
				Vial (ALE297)
9122317	UD1			1l Glass bottle (ALE)
				1lplastic (ALE221)
				H2SO4 (ALE244)
				NaOH (ALE245)
				Vial (ALE297)
9122318	UD3			1l Glass bottle (ALE)
				1lplastic (ALE221)
				H2SO4 (ALE244)
				Vial (ALE297)
9122320	UD4			1l Glass bottle (ALE)
				1lplastic (ALE221)
				H2SO4 (ALE244)
				NaOH (ALE245)
				Vial (ALE297)
9122321	UD5			1l Glass bottle (ALE)

Acid Herbicides by LCQQQ (aq)	All	NDPs: 0 Tests: 25	X X X X X X X X X X X X X X X
Alkalinity as CaCO3	All	NDPs: 0 Tests: 25	X X X X X X X X X X X X X X X
Alkalinity Filtered as CaCO3	All	NDPs: 0 Tests: 6	X X X X X X
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 25	X X X X X X X X X X X X X X X
Anions by Kone (w)	All	NDPs: 0 Tests: 25	X X X X X X X X X X X X X X X
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 25	X X X X X X X X X X X X X X X
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 25	X X X X X X X X X X X X X X X
EPH (DRO) (C10-C40) Aqueous (W)	All	NDPs: 0 Tests: 25	X X X X X X X X X X X X X X X
GRO by GC-FID (W)	All	NDPs: 0 Tests: 25	X X X X X X X X X X X X X X X
Ionic Balance	All	NDPs: 0 Tests: 6	X X X X X X
Metals by iCap-OES Dissolved (W)	All	NDPs: 0 Tests: 25	X X X X X X X X X X X X X X X
Nitrite by Kone (w)	All	NDPs: 0 Tests: 25	X X X X X X X X X X X X X X X
pH Value	All	NDPs: 0 Tests: 6	X X X X X X
Suspended Solids	All	NDPs: 0 Tests: 6	X X X X X X
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 25	X X X X X X X X X X X X X X X

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
Total EPH (aq)	All	NDPs: 0 Tests: 25	9122308	SW202			1l Glass bottle (ALE
			9122309	SW204			1l Glass bottle (ALE
			9122311	SW205			1l Glass bottle (ALE
			9122313	SW206			1l Glass bottle (ALE
			9122314	SW207			1l Glass bottle (ALE
			9122317	UD1			1l Glass bottle (ALE
			9122318	UD3			1l Glass bottle (ALE
			9122320	UD4			1l Glass bottle (ALE
			9122321	UD5			1l Glass bottle (ALE
Total Organic and Inorganic Carbon	All	NDPs: 0 Tests: 6	9122308	SW202			1l Glass bottle (ALE
			9122309	SW204			1l Glass bottle (ALE
			9122311	SW205			1l Glass bottle (ALE
			9122313	SW206			1l Glass bottle (ALE
			9122314	SW207			1l Glass bottle (ALE
			9122317	UD1			1l Glass bottle (ALE
			9122318	UD3			1l Glass bottle (ALE
			9122320	UD4			1l Glass bottle (ALE
			9122321	UD5			1l Glass bottle (ALE
VOC MS (W)	All	NDPs: 0 Tests: 25	9122308	SW202			Vial (ALE297)
			9122309	SW204			Vial (ALE297)
			9122311	SW205			Vial (ALE297)
			9122313	SW206			Vial (ALE297)
			9122314	SW207			Vial (ALE297)
			9122317	UD1			Vial (ALE297)
			9122318	UD3			Vial (ALE297)
			9122320	UD4			Vial (ALE297)
			9122321	UD5			Vial (ALE297)

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container			
			9122321	UD5			1plastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)
Alkalinity as CaCO3	All	NDPs: 0 Tests: 25					X			
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 25						X		
Anions by Kone (w)	All	NDPs: 0 Tests: 25					X			
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 25					X			
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 25					X			
GRO by GC-FID (W)	All	NDPs: 0 Tests: 25								X
Metals by iCap-OES Dissolved (W)	All	NDPs: 0 Tests: 25					X			
Nitrite by Kone (w)	All	NDPs: 0 Tests: 25							X	
VOC MS (W)	All	NDPs: 0 Tests: 25								X

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/04/2014	08/04/2014	08/04/2014	08/04/2014	08/04/2014	08/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122330	9122331	9122323	9122322	9122332	9122333
			AGS Reference						
Alkalinity, Total as CaCO3	<2 mg/l	TM043		80 #	155 #	190 #	165 #	150 #	6 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	<0.2 #	<0.2 #	0.351 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.181 #	0.296 #	0.293 #	0.272 #	0.3 #	0.1 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		1.07 #	2.78 #	2.58 #	2.07 #	1.91 #	1.39 #
Copper (diss.filt)	<0.85 µg/l	TM152		1.33 #	<0.85 #	1.1 #	3.28 #	5.35 #	3.28 #
Lead (diss.filt)	<0.02 µg/l	TM152		0.214 #	<0.02 #	0.103 #	0.227 #	0.195 #	0.214 #
Manganese (diss.filt)	<0.04 µg/l	TM152		3210 #	0.485 #	1650 #	1370 #	939 #	331 #
Nickel (diss.filt)	<0.15 µg/l	TM152		0.853 #	0.807 #	1.77 #	2.69 #	4.82 #	1.49 #
Zinc (diss.filt)	<0.41 µg/l	TM152		<0.41 #	<0.41 #	<0.41 #	1.84 #	0.749 #	3.01 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		<46 #	223 #	81.6 #	132 #	168 #	33400 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		<100	223	<100	132	168	33400
Nitrite as NO2	<0.05 mg/l	TM184		<0.05 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #
Sulphate	<2 mg/l	TM184		3.3 #	6.8 #	5.5 #	<2 #	19.2 #	<2 #
Chloride	<2 mg/l	TM184		22.1 #	10.5 #	12.5 #	9.2 #	17.5 #	12.3 #
Nitrate as NO3	<0.3 mg/l	TM184		4.06 #	8.16 #	<0.3 #	<0.3 #	3.83 #	<0.3 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		0.926 #	1.85 #	<0.1 #	<0.1 #	0.869 #	<0.1 #
Calcium (diss.filt)	<0.012 mg/l	TM228		21.9 #	51 #	52.1 #	46.5 #	43.7 #	8.89 #
Sodium (diss.filt)	<0.076 mg/l	TM228		11.4 #	9.28 #	7.27 #	7.47 #	12.1 #	6.87 #
Magnesium (diss.filt)	<0.036 mg/l	TM228		2.54 #	5.48 #	4.64 #	1.97 #	6.74 #	2.51 #
Potassium (diss.filt)	<1 mg/l	TM228		<1 #	1.12 #	<1 #	4.68 #	3 #	<1 #
Iron (diss.filt)	<0.019 mg/l	TM228		0.309 #	<0.019 #	0.718 #	0.491 #	0.217 #	1.03 #
MCPP (Mecoprop)	<0.04 µg/l	TM324		<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	BH5/2	BH208	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/04/2014	08/04/2014	09/04/2014	08/04/2014	08/04/2014	08/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122334	9122335	9122315	9122324	9122325	9122326
			AGS Reference						
Alkalinity, Total as CaCO3	<2 mg/l	TM043		65 #	235 #	240 #	510 #	245 #	85 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.19 #	0.442 #	0.438 #	0.456 #	0.442 #	0.257 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		0.771 #	2.69 #	3.05 #	3.19 #	2.74 #	1.15 #
Copper (diss.filt)	<0.85 µg/l	TM152		<0.85 #	<0.85 #	<0.85 #	<0.85 #	<0.85 #	4.66 #
Lead (diss.filt)	<0.02 µg/l	TM152		0.045 #	<0.02 #	<0.02 #	<0.02 #	<0.02 #	<0.02 #
Manganese (diss.filt)	<0.04 µg/l	TM152		375 #	0.076 #	<0.04 #	27.2 #	0.507 #	3.15 #
Nickel (diss.filt)	<0.15 µg/l	TM152		0.537 #	1.21 #	1.21 #	1.26 #	1.27 #	0.924 #
Zinc (diss.filt)	<0.41 µg/l	TM152		0.43 #	0.494 #	<0.41 #	1.66 #	2.29 #	3.3 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		58 #	<46 #	<46 #	1370 #	<46 #	<46 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		<100	<100	<100	1370	<100	<100
Nitrite as NO2	<0.05 mg/l	TM184		<0.05 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #
Sulphate	<2 mg/l	TM184		<2 #	13.3 #	9.1 #	20.9 #	12.3 #	9.3 #
Chloride	<2 mg/l	TM184		26.7 #	18.5 #	14.6 #	20.5 #	18.7 #	25 #
Nitrate as NO3	<0.3 mg/l	TM184		6.39 #	11 #	9.95 #	6.88 #	8.57 #	16.4 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		1.45 #	2.5 #	2.26 #	1.56 #	1.94 #	3.71 #
Calcium (diss.filt)	<0.012 mg/l	TM228		26.3 #	71.9 #	70.8 #	83.9 #	80.4 #	33.6 #
Sodium (diss.filt)	<0.076 mg/l	TM228		9.35 #	10.1 #	10.2 #	9.52 #	10.3 #	11.6 #
Magnesium (diss.filt)	<0.036 mg/l	TM228		1.34 #	8.15 #	7.82 #	7.44 #	7.61 #	3.32 #
Potassium (diss.filt)	<1 mg/l	TM228		<1 #	1.21 #	1.08 #	<1 #	<1 #	1.61 #
Iron (diss.filt)	<0.019 mg/l	TM228		<0.019 #	<0.019 #	<0.019 #	<0.019 #	<0.019 #	<0.019 #
MCPP (Mecoprop)	<0.04 µg/l	TM324		<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW219	NACW228	NACW229	SW201	SW202	SW204
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122327	9122328	9122329	9122307	9122308	9122309
			AGS Reference						
Ionic balance	% Diff	Calulation					-5.36	-5.36	-5.88
Suspended solids, Total	<2 mg/l	TM022					9 #	4 #	14.5 #
Alkalinity, Total as CaCO3	<2 mg/l	TM043		160 #	35 #	100 #	95 #	115 #	105 #
Alkalinity,Total as CaCO3 (diss.filt)	<2 mg/l	TM043					95	115	110
Alkalinity, Bicarbonate as CaCO3 (diss.filt)	<2 mg/l	TM043					95	115	110
Organic Carbon, Total	<3 mg/l	TM090					5.75 #	6.79 #	4.34 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		0.233 #	<0.2 #	<0.2 #	0.286 #	0.292 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.32 #	0.232 #	0.351 #	0.314 #	0.349 #	0.235 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		1.7 #	1.23 #	1.5 #	1.52 #	2.02 #	1.79 #
Copper (diss.filt)	<0.85 µg/l	TM152		<0.85 #	7.14 #	5.2 #	5.41 #	4.69 #	1.13 #
Lead (diss.filt)	<0.02 µg/l	TM152		0.03 #	0.032 #	0.154 #	0.097 #	0.11 #	0.047 #
Manganese (diss.filt)	<0.04 µg/l	TM152		194 #	134 #	84 #	6.93 #	37.9 #	4.83 #
Nickel (diss.filt)	<0.15 µg/l	TM152		2.15 #	4.77 #	1.87 #	1.92 #	1.84 #	1.1 #
Zinc (diss.filt)	<0.41 µg/l	TM152		0.773 #	16.3 #	1.79 #	4.96 #	3.78 #	2.68 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		76.2 #	56.1 #	<46 #	<46 #	<46 #	<46 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		<100	<100	<100	<100	<100	<100
Nitrite as NO2	<0.05 mg/l	TM184		<0.05 #	<0.05 #	<0.05 #	0.064 #	0.121 #	<0.05 #
Sulphate	<2 mg/l	TM184		4.7 #	39.4 #	51.7 #	46.5 #	39.3 #	4.3 #
Chloride	<2 mg/l	TM184		17.2 #	28.7 #	24.5 #	24.5 #	27.2 #	14.9 #
Nitrate as NO3	<0.3 mg/l	TM184		0.708 #	1.72 #	1.89 #	4.33 #	7.56 #	7.12 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		0.165 #	0.393 #	0.438 #	1 #	1.68 #	1.55 #
Calcium (diss.filt)	<0.012 mg/l	TM228		52.3 #	20.7 #	44.8 #	43.1 #	46.3 #	38.6 #
Sodium (diss.filt)	<0.076 mg/l	TM228		8.66 #	15 #	13.2 #	13 #	13.5 #	8.73 #
Magnesium (diss.filt)	<0.036 mg/l	TM228		4.47 #	5.72 #	4.91 #	4.06 #	4.85 #	3.06 #
Potassium (diss.filt)	<1 mg/l	TM228		<1 #	<1 #	10.5 #	8.36 #	11 #	<1 #
Iron (diss.filt)	<0.019 mg/l	TM228		<0.019 #	<0.019 #	0.0821 #	0.0239 #	0.0337 #	0.061 #
pH	<1 pH Units	TM256					7.83 #	7.81 #	7.86 #
MCPP (Mecoprop)	<0.04 µg/l	TM324		<0.04	<0.04	<0.08	<0.04	<0.08	<0.04

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Depth (m)	Sample Type	Date Sampled	Sampled Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			SW205	.	Water(GW/SW)	09/04/2014	.	10/04/2014	140410-38	9122311	
			SW206	.	Water(GW/SW)	09/04/2014	.	10/04/2014	140410-38	9122313	
			SW207	.	Water(GW/SW)	09/04/2014	.	10/04/2014	140410-38	9122314	
			UD1	.	Water(GW/SW)	09/04/2014	.	10/04/2014	140410-38	9122317	
			UD3	.	Water(GW/SW)	09/04/2014	.	10/04/2014	140410-38	9122318	
			UD4	.	Water(GW/SW)	09/04/2014	.	10/04/2014	140410-38	9122320	
Ionic balance	% Diff	Calulation	-5.66								
Suspended solids, Total	<2 mg/l	TM022	12.5 #								
Alkalinity, Total as CaCO3	<2 mg/l	TM043	125 #								
Alkalinity,Total as CaCO3 (diss.filt)	<2 mg/l	TM043	125								
Alkalinity, Bicarbonate as CaCO3 (diss.filt)	<2 mg/l	TM043	125								
Organic Carbon, Total	<3 mg/l	TM090	<3 #								
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	<0.2 #								
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120	0.358 #								
Cadmium (diss.filt)	<0.1 µg/l	TM152	<0.1 #								
Chromium (diss.filt)	<0.22 µg/l	TM152	1.68 #								
Copper (diss.filt)	<0.85 µg/l	TM152	4.37 #								
Lead (diss.filt)	<0.02 µg/l	TM152	0.104 #								
Manganese (diss.filt)	<0.04 µg/l	TM152	30.5 #								
Nickel (diss.filt)	<0.15 µg/l	TM152	1.63 #								
Zinc (diss.filt)	<0.41 µg/l	TM152	4.05 #								
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172	<46 #								
Total EPH (C6-C40) (aq)	<100 µg/l	TM172	<100								
Nitrite as NO2	<0.05 mg/l	TM184	0.153 #								
Sulphate	<2 mg/l	TM184	35.2 #								
Chloride	<2 mg/l	TM184	25.3 #								
Nitrate as NO3	<0.3 mg/l	TM184	7.36 #								
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184	1.69 #								
Calcium (diss.filt)	<0.012 mg/l	TM228	49.8 #								
Sodium (diss.filt)	<0.076 mg/l	TM228	14 #								
Magnesium (diss.filt)	<0.036 mg/l	TM228	4.78 #								
Potassium (diss.filt)	<1 mg/l	TM228	9.71 #								
Iron (diss.filt)	<0.019 mg/l	TM228	0.0373 #								
pH	<1 pH Units	TM256	7.95 #								
MCPP (Mecoprop)	<0.04 µg/l	TM324	0.047								

Component	LOD/Units	Method	SW205	SW206	SW207	UD1	UD3	UD4
Ionic balance	% Diff	Calulation	-5.66	-0.689	-5.03			
Suspended solids, Total	<2 mg/l	TM022	12.5 #	2.5 #	21 #			
Alkalinity, Total as CaCO3	<2 mg/l	TM043	125 #	35.5 #	110 #	240 #	195 #	265 #
Alkalinity,Total as CaCO3 (diss.filt)	<2 mg/l	TM043	125	32.5	120			
Alkalinity, Bicarbonate as CaCO3 (diss.filt)	<2 mg/l	TM043	125	32.5	120			
Organic Carbon, Total	<3 mg/l	TM090	<3 #	<3 #	<3 #			
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	<0.2 #	<0.2 #	<0.2 #	0.916 #	<0.2 #	0.832 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120	0.358 #	0.123 #	0.246 #	0.721 #	0.359 #	0.708 #
Cadmium (diss.filt)	<0.1 µg/l	TM152	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152	1.68 #	0.499 #	1.29 #	1.96 #	2.25 #	2.23 #
Copper (diss.filt)	<0.85 µg/l	TM152	4.37 #	0.963 #	1.62 #	5.35 #	<0.85 #	3.33 #
Lead (diss.filt)	<0.02 µg/l	TM152	0.104 #	0.039 #	0.08 #	0.218 #	<0.02 #	0.137 #
Manganese (diss.filt)	<0.04 µg/l	TM152	30.5 #	0.625 #	10.6 #	12 #	105 #	118 #
Nickel (diss.filt)	<0.15 µg/l	TM152	1.63 #	0.451 #	1.13 #	4.18 #	0.893 #	3.42 #
Zinc (diss.filt)	<0.41 µg/l	TM152	4.05 #	99 #	2.58 #	4.98 #	0.412 #	4.12 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172	<46 #	<46 #	<46 #	74.9 #	<46 #	69.6 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172	<100	<100	<100	<100	<100	<100
Nitrite as NO2	<0.05 mg/l	TM184	0.153 #	<0.05 #	<0.05 #	0.188 #	<0.05 2 #	0.314 #
Sulphate	<2 mg/l	TM184	35.2 #	<2 #	7.6 #	122 #	10.3 #	78.2 #
Chloride	<2 mg/l	TM184	25.3 #	16.8 #	13.8 #	50.8 #	15.1 #	51.3 #
Nitrate as NO3	<0.3 mg/l	TM184	7.36 #	<0.3 #	7.9 #	7.39 #	5.43 #	12.9 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184	1.69 #	<0.1 #	1.85 #	1.73 #	1.23 #	3.01 #
Calcium (diss.filt)	<0.012 mg/l	TM228	49.8 #	11.7 #	42.2 #	103 #	53.6 #	97.6 #
Sodium (diss.filt)	<0.076 mg/l	TM228	14 #	10.1 #	8.75 #	27.1 #	10.6 #	27.8 #
Magnesium (diss.filt)	<0.036 mg/l	TM228	4.78 #	1.16 #	3.42 #	8.11 #	5.75 #	8.97 #
Potassium (diss.filt)	<1 mg/l	TM228	9.71 #	1.76 #	1.84 #	28.5 #	1.37 #	28.2 #
Iron (diss.filt)	<0.019 mg/l	TM228	0.0373 #	0.1 #	0.0409 #	0.0438 #	<0.019 #	0.0559 #
pH	<1 pH Units	TM256	7.95 #	7.79 #	8.03 #			
MCPP (Mecoprop)	<0.04 µg/l	TM324	0.047	<0.04	<0.04	<0.2	<0.04	0.097

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	UD5
			Depth (m)	.
			Sample Type	Water(GW/SW)
			Date Sampled	09/04/2014
			Sampled Time	.
			Date Received	10/04/2014
			SDG Ref	140410-38
			Lab Sample No.(s)	9122321
			AGS Reference	
Alkalinity, Total as CaCO3	<2 mg/l	TM043		90 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.242 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		1.66 #
Copper (diss.filt)	<0.85 µg/l	TM152		<0.85 #
Lead (diss.filt)	<0.02 µg/l	TM152		0.052 #
Manganese (diss.filt)	<0.04 µg/l	TM152		73.6 #
Nickel (diss.filt)	<0.15 µg/l	TM152		0.977 #
Zinc (diss.filt)	<0.41 µg/l	TM152		0.996 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		<46 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		<100
Nitrite as NO2	<0.05 mg/l	TM184		<0.05 #
Sulphate	<2 mg/l	TM184		2.9 #
Chloride	<2 mg/l	TM184		11.6 #
Nitrate as NO3	<0.3 mg/l	TM184		2.45 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		0.56 #
Calcium (diss.filt)	<0.012 mg/l	TM228		39.7 #
Sodium (diss.filt)	<0.076 mg/l	TM228		7.33 #
Magnesium (diss.filt)	<0.036 mg/l	TM228		2.81 #
Potassium (diss.filt)	<1 mg/l	TM228		<1 #
Iron (diss.filt)	<0.019 mg/l	TM228		0.0831 #
MCPP (Mecoprop)	<0.04 µg/l	TM324		<0.04

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/04/2014	08/04/2014	08/04/2014	08/04/2014	08/04/2014	08/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122330	9122331	9122323	9122322	9122332	9122333
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		<7 #	<7 #	<7 #	<7 #	<7 #	<7 #
Toluene	<4 µg/l	TM245		<4 #	<4 #	<4 #	<4 #	<4 #	<4 #
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	<8 #	<8 #	<8 #	<8 #
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	<28	<28	<28	<28
EPH (C6-C10)	<100 µg/l	TM245		<100	<100	<100	<100	<100	<100

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	BH5/2	BH208	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/04/2014	08/04/2014	09/04/2014	08/04/2014	08/04/2014	08/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122334	9122335	9122315	9122324	9122325	9122326
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 1 #	<3 #
Benzene	<7 µg/l	TM245		<7 #	<7 #	<7 #	<7 #	<7 1 #	<7 #
Toluene	<4 µg/l	TM245		<4 #	<4 #	<4 #	<4 #	<4 1 #	<4 #
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	<5 #	<5 #	<5 1 #	<5 #
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	<8 #	<8 #	<8 1 #	<8 #
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 1 #	<3 #
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	<28	<28	<28 1	<28
EPH (C6-C10)	<100 µg/l	TM245		<100	<100	<100	<100	<100 1	<100

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW219	NACW228	NACW229	SW201	SW202	SW204
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122327	9122328	9122329	9122307	9122308	9122309
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 1 #	<3 1 #
Benzene	<7 µg/l	TM245		<7 #	<7 #	<7 #	<7 #	<7 1 #	<7 1 #
Toluene	<4 µg/l	TM245		<4 #	<4 #	<4 #	<4 #	<4 1 #	<4 1 #
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	<5 #	<5 #	<5 1 #	<5 1 #
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	<8 #	<8 #	<8 1 #	<8 1 #
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 1 #	<3 1 #
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	<28	<28	<28 1	<28 1
EPH (C6-C10)	<100 µg/l	TM245		<100	<100	<100	<100	<100 1	<100 1

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW205	SW206	SW207	UD1	UD3	UD4
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	09/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122311	9122313	9122314	9122317	9122318	9122320
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 1 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #	<3 #
Benzene	<7 µg/l	TM245		<7 1 #	<7 1 #	<7 1 #	<7 1 #	<7 1 #	<7 #
Toluene	<4 µg/l	TM245		<4 1 #	<4 1 #	<4 1 #	<4 1 #	<4 1 #	<4 #
Ethylbenzene	<5 µg/l	TM245		<5 1 #	<5 1 #	<5 1 #	<5 1 #	<5 1 #	<5 #
m,p-Xylene	<8 µg/l	TM245		<8 1 #	<8 1 #	<8 1 #	<8 1 #	<8 1 #	<8 #
o-Xylene	<3 µg/l	TM245		<3 1 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #	<3 #
Sum of detected BTEX	<28 µg/l	TM245		<28 1	<28 1	<28 1	<28 1	<28 1	<28
EPH (C6-C10)	<100 µg/l	TM245		<100 1	<100 1	<100 1	<100 1	<100 1	<100

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Customer Sample R			UD5
Depth (m)			.
Sample Type			Water(GW/SW)
Date Sampled			09/04/2014
Sampled Time			.
Date Received			10/04/2014
SDG Ref			140410-38
Lab Sample No.(s)			9122321
AGS Reference			
Component	**LOD/Units**	**Method**	
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245	<3 #
Benzene	<7 µg/l	TM245	<7 #
Toluene	<4 µg/l	TM245	<4 #
Ethylbenzene	<5 µg/l	TM245	<5 #
m,p-Xylene	<8 µg/l	TM245	<8 #
o-Xylene	<3 µg/l	TM245	<3 #
Sum of detected BTEX	<28 µg/l	TM245	<28
EPH (C6-C10)	<100 µg/l	TM245	<100

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/04/2014	08/04/2014	08/04/2014	08/04/2014	08/04/2014	08/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122330	9122331	9122323	9122322	9122332	9122333
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<2 #	<2 #	<2 #	<2 #	<2 #	6.9 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/04/2014	08/04/2014	08/04/2014	08/04/2014	08/04/2014	08/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122330	9122331	9122323	9122322	9122332	9122333
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbazole (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chrysene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Fluorene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isophorone (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenanthrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	BH5/2	BH208	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/04/2014	08/04/2014	09/04/2014	08/04/2014	08/04/2014	08/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122334	9122335	9122315	9122324	9122325	9122326
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	BH5/2	BH208	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/04/2014	08/04/2014	09/04/2014	08/04/2014	08/04/2014	08/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122334	9122335	9122315	9122324	9122325	9122326
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbazole (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chrysene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Fluorene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isophorone (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenanthrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW219	NACW228	NACW229	SW201	SW202	SW204
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122327	9122328	9122329	9122307	9122308	9122309
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW219	NACW228	NACW229	SW201	SW202	SW204
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122327	9122328	9122329	9122307	9122308	9122309
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbazole (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chrysene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Fluorene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isophorone (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenanthrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW205	SW206	SW207	UD1	UD3	UD4
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	09/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122311	9122313	9122314	9122317	9122318	9122320
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW205	SW206	SW207	UD1	UD3	UD4
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	09/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122311	9122313	9122314	9122317	9122318	9122320
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbazole (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chrysene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Fluorene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isophorone (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenanthrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Customer Sample R	UD5
Depth (m)	.
Sample Type	Water(GW/SW)
Date Sampled	09/04/2014
Sampled Time	.
Date Received	10/04/2014
SDG Ref	140410-38
Lab Sample No.(s)	9122321
AGS Reference	

Component	LOD/Units	Method	
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176	<1
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176	<1
Azobenzene (aq)	<1 µg/l	TM176	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176	<1 #
Acenaphthene (aq)	<1 µg/l	TM176	<1 #
Anthracene (aq)	<1 µg/l	TM176	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Customer Sample R			UD5						
Depth (m)			.						
Sample Type			Water(GW/SW)						
Date Sampled			09/04/2014						
Sampled Time			.						
Date Received			10/04/2014						
SDG Ref			140410-38						
Lab Sample No.(s)			9122321						
AGS Reference									
Component	**LOD/Units**	**Method**							
Benzo(a)anthracene (aq)	<1 µg/l	TM176	<1 #						
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176	<1 #						
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176	<1 #						
Benzo(a)pyrene (aq)	<1 µg/l	TM176	<1 #						
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176	<1 #						
Carbazole (aq)	<1 µg/l	TM176	<1 #						
Chrysene (aq)	<1 µg/l	TM176	<1 #						
Dibenzofuran (aq)	<1 µg/l	TM176	<1 #						
n-Dibutyl phthalate (aq)	<1 µg/l	TM176	<1 #						
Diethyl phthalate (aq)	<1 µg/l	TM176	<1 #						
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176	<1 #						
Dimethyl phthalate (aq)	<1 µg/l	TM176	<1 #						
n-Dioctyl phthalate (aq)	<5 µg/l	TM176	<5 #						
Fluoranthene (aq)	<1 µg/l	TM176	<1 #						
Fluorene (aq)	<1 µg/l	TM176	<1 #						
Hexachlorobenzene (aq)	<1 µg/l	TM176	<1 #						
Hexachlorobutadiene (aq)	<1 µg/l	TM176	<1 #						
Pentachlorophenol (aq)	<1 µg/l	TM176	<1						
Phenol (aq)	<1 µg/l	TM176	<1						
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176	<1 #						
Hexachloroethane (aq)	<1 µg/l	TM176	<1 #						
Nitrobenzene (aq)	<1 µg/l	TM176	<1 #						
Naphthalene (aq)	<1 µg/l	TM176	<1 #						
Isophorone (aq)	<1 µg/l	TM176	<1 #						
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176	<1						
Phenanthrene (aq)	<1 µg/l	TM176	<1 #						
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176	<1 #						
Pyrene (aq)	<1 µg/l	TM176	<1 #						

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/04/2014	08/04/2014	08/04/2014	08/04/2014	08/04/2014	08/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122330	9122331	9122323	9122322	9122332	9122333
			AGS Reference						
Dibromofluoromethane**	%	TM208		119	121	118	116	121	120
Toluene-d8**	%	TM208		99.2	98.9	99.1	98.4	99.8	98.4
4-Bromofluorobenzene**	%	TM208		92.9	93.1	93.1	92.6	92.5	94
Dichlorodifluoromethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Benzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/04/2014	08/04/2014	08/04/2014	08/04/2014	08/04/2014	08/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122330	9122331	9122323	9122322	9122332	9122333
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend		Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
#	ISO17025 accredited.							
M	*m*CERTS accredited.							
aq	Aqueous / settled sample.	Depth (m)	.	.	.	.	.	.
diss.filt	Dissolved / filtered sample.	Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
tot.unfilt	Total / unfiltered sample.	Date Sampled	08/04/2014	08/04/2014	08/04/2014	08/04/2014	08/04/2014	08/04/2014
*	Subcontracted test.	Sampled Time	.	.	.	.	.	.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery	Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
		SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
(F)	Trigger breach confirmed	Lab Sample No.(s)	9122330	9122331	9122323	9122322	9122332	9122333
1-5&+§@	Sample deviation (see appendix)	AGS Reference						

Component	LOD/Units	Method						
1,2,3-Trichlorobenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208	<1	<1	<1	<1	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	BH5/2	BH208	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/04/2014	08/04/2014	09/04/2014	08/04/2014	08/04/2014	08/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122334	9122335	9122315	9122324	9122325	9122326
			AGS Reference						
Dibromofluoromethane**	%	TM208		117	119	119	119	117 1	122
Toluene-d8**	%	TM208		98.8	100	99.3	99.1	99.5 1	99.4
4-Bromofluorobenzene**	%	TM208		93.7	93	93.7	94.2	91.8 1	93
Dichlorodifluoromethane	<1 µg/l	TM208		<1	<1	<1	<1	<1 1	<1
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 1 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1 1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1 1	<1
Benzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Toluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	BH5/2	BH208	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/04/2014	08/04/2014	09/04/2014	08/04/2014	08/04/2014	08/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122334	9122335	9122315	9122324	9122325	9122326
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1 1	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1 1	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1 1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	BH5/2	BH208	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/04/2014	08/04/2014	09/04/2014	08/04/2014	08/04/2014	08/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122334	9122335	9122315	9122324	9122325	9122326
			AGS Reference						
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1 1	<1

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW219	NACW228	NACW229	SW201	SW202	SW204
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122327	9122328	9122329	9122307	9122308	9122309
			AGS Reference						
Dibromofluoromethane**	%	TM208		117 1	119	124	118	119 1	117 1
Toluene-d8**	%	TM208		99.9 1	98.8	100	98.6	98.8 1	99.8 1
4-Bromofluorobenzene**	%	TM208		94 1	93.6	95.4	93.7	93 1	93.8 1
Dichlorodifluoromethane	<1 µg/l	TM208		<1 1	<1	<1	<1	<1 1	<1 1
Chloromethane	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Vinyl chloride	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Bromomethane	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Chloroethane	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Carbon disulphide	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Dichloromethane	<3 µg/l	TM208		<3 1 #	<3 #	<3 #	<3 #	<3 1 #	<3 1 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1 1	<1	<1	<1	<1 1	<1 1
Bromochloromethane	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Chloroform	<1 µg/l	TM208		<1 1 #	3.89 #	4.67 #	5.8 #	5.86 1 #	<1 1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Carbontetrachloride	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1 1	<1	<1	<1	<1 1	<1 1
Benzene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Trichloroethene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Dibromomethane	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Bromodichloromethane	<1 µg/l	TM208		<1 1 #	3.4 #	3.53 #	5.12 #	4.17 1 #	<1 1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Toluene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW219	NACW228	NACW229	SW201	SW202	SW204
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122327	9122328	9122329	9122307	9122308	9122309
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Tetrachloroethene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Dibromochloromethane	<1 µg/l	TM208		<1 1 #	2.29 #	2.27 #	3.15 #	3.17 1 #	<1 1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Chlorobenzene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Ethylbenzene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
m,p-Xylene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
o-Xylene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Styrene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Bromoform	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Isopropylbenzene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1 1	<1	<1	<1	<1 1	<1 1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Bromobenzene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Propylbenzene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
n-Butylbenzene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1 1	<1	<1	<1	<1 1	<1 1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1 1	<1	<1	<1	<1 1	<1 1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
Naphthalene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW219	NACW228	NACW229	SW201	SW202	SW204
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122327	9122328	9122329	9122307	9122308	9122309
			AGS Reference						
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 1 #	<1 #	<1 #	<1 #	<1 1 #	<1 1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1 1	<1	<1	<1	<1 1	<1 1

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW205	SW206	SW207	UD1	UD3	UD4
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	09/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122311	9122313	9122314	9122317	9122318	9122320
			AGS Reference						
Dibromofluoromethane**	%	TM208		116 1	119 1	116 1	122 1	120 1	117 1
Toluene-d8**	%	TM208		99 1	98.8 1	99.3 1	98.1 1	98.8 1	98.7 1
4-Bromofluorobenzene**	%	TM208		94.9 1	92.8 1	93.4 1	93.2 1	93.5 1	93.6 1
Dichlorodifluoromethane	<1 µg/l	TM208		<1 1	<1 1	<1 1	<1 1	<1 1	<1 1
Chloromethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Vinyl chloride	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Bromomethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Chloroethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Carbon disulphide	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Dichloromethane	<3 µg/l	TM208		<3 1 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1 1	<1 1	<1 1	<1 1	<1 1	<1 1
Bromochloromethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Chloroform	<1 µg/l	TM208		5 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Carbontetrachloride	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1 1	<1 1	<1 1	<1 1	<1 1	<1 1
Benzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Trichloroethene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Dibromomethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Bromodichloromethane	<1 µg/l	TM208		4.02 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Toluene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW205	SW206	SW207	UD1	UD3	UD4
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	09/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014	09/04/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014	10/04/2014
			SDG Ref	140410-38	140410-38	140410-38	140410-38	140410-38	140410-38
			Lab Sample No.(s)	9122311	9122313	9122314	9122317	9122318	9122320
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Tetrachloroethene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Dibromochloromethane	<1 µg/l	TM208		2.62 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Chlorobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Ethylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
m,p-Xylene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
o-Xylene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Styrene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Bromoform	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Isopropylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1 1	<1 1	<1 1	<1 1	<1 1	<1 1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Bromobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Propylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
n-Butylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1 1	<1 1	<1 1	<1 1	<1 1	<1 1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1 1	<1 1	<1 1	<1 1	<1 1	<1 1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Naphthalene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Depth (m)	Sample Type	Date Sampled	Sampled Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			SW205	.	Water(GW/SW)	09/04/2014	.	10/04/2014	140410-38	9122311	
			SW206	.	Water(GW/SW)	09/04/2014	.	10/04/2014	140410-38	9122313	
			SW207	.	Water(GW/SW)	09/04/2014	.	10/04/2014	140410-38	9122314	
			UD1	.	Water(GW/SW)	09/04/2014	.	10/04/2014	140410-38	9122317	
			UD3	.	Water(GW/SW)	09/04/2014	.	10/04/2014	140410-38	9122318	
			UD4	.	Water(GW/SW)	09/04/2014	.	10/04/2014	140410-38	9122320	
1,2,3-Trichlorobenzene	<1 µg/l	TM208	<1 1 #								
			<1 1 #								
			<1 1 #								
			<1 1 #								
			<1 1 #								
			<1 1 #								
1,3,5-Trichlorobenzene	<1 µg/l	TM208	<1 1								
			<1 1								
			<1 1								
			<1 1								
			<1 1								
			<1 1								

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Customer Sample R	UD5
Depth (m)	.
Sample Type	Water(GW/SW)
Date Sampled	09/04/2014
Sampled Time	.
Date Received	10/04/2014
SDG Ref	140410-38
Lab Sample No.(s)	9122321
AGS Reference	

Component	LOD/Units	Method	
Dibromofluoromethane**	%	TM208	122
Toluene-d8**	%	TM208	99.3
4-Bromofluorobenzene**	%	TM208	94.4
Dichlorodifluoromethane	<1 µg/l	TM208	<1
Chloromethane	<1 µg/l	TM208	<1 #
Vinyl chloride	<1 µg/l	TM208	<1 #
Bromomethane	<1 µg/l	TM208	<1 #
Chloroethane	<1 µg/l	TM208	<1 #
Trichlorofluoromethane	<1 µg/l	TM208	<1 #
1,1-Dichloroethene	<1 µg/l	TM208	<1 #
Carbon disulphide	<1 µg/l	TM208	<1 #
Dichloromethane	<3 µg/l	TM208	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208	<1 #
1,1-Dichloroethane	<1 µg/l	TM208	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208	<1 #
2,2-Dichloropropane	<1 µg/l	TM208	<1
Bromochloromethane	<1 µg/l	TM208	<1 #
Chloroform	<1 µg/l	TM208	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208	<1 #
1,1-Dichloropropene	<1 µg/l	TM208	<1 #
Carbontetrachloride	<1 µg/l	TM208	<1 #
1,2-Dichloroethane	<1 µg/l	TM208	<1
Benzene	<1 µg/l	TM208	<1 #
Trichloroethene	<1 µg/l	TM208	<1 #
1,2-Dichloropropane	<1 µg/l	TM208	<1 #
Dibromomethane	<1 µg/l	TM208	<1 #
Bromodichloromethane	<1 µg/l	TM208	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208	<1 #
Toluene	<1 µg/l	TM208	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R					
			UD5					
			Depth (m)	.				
			Sample Type	Water(GW/SW)				
			Date Sampled	09/04/2014				
			Sampled Time	.				
			Date Received	10/04/2014				
			SDG Ref	140410-38				
			Lab Sample No.(s)	9122321				
			AGS Reference					
1,3-Dichloropropane	<1 µg/l	TM208	<1 #					
Tetrachloroethene	<1 µg/l	TM208	<1 #					
Dibromochloromethane	<1 µg/l	TM208	<1 #					
1,2-Dibromoethane	<1 µg/l	TM208	<1 #					
Chlorobenzene	<1 µg/l	TM208	<1 #					
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208	<1 #					
Ethylbenzene	<1 µg/l	TM208	<1 #					
m,p-Xylene	<1 µg/l	TM208	<1 #					
o-Xylene	<1 µg/l	TM208	<1 #					
Styrene	<1 µg/l	TM208	<1 #					
Bromoform	<1 µg/l	TM208	<1 #					
Isopropylbenzene	<1 µg/l	TM208	<1 #					
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208	<1					
1,2,3-Trichloropropane	<1 µg/l	TM208	<1 #					
Bromobenzene	<1 µg/l	TM208	<1 #					
Propylbenzene	<1 µg/l	TM208	<1 #					
2-Chlorotoluene	<1 µg/l	TM208	<1 #					
1,3,5-Trimethylbenzene	<1 µg/l	TM208	<1 #					
4-Chlorotoluene	<1 µg/l	TM208	<1 #					
tert-Butylbenzene	<1 µg/l	TM208	<1 #					
1,2,4-Trimethylbenzene	<1 µg/l	TM208	<1 #					
sec-Butylbenzene	<1 µg/l	TM208	<1 #					
4-iso-Propyltoluene	<1 µg/l	TM208	<1 #					
1,3-Dichlorobenzene	<1 µg/l	TM208	<1 #					
1,4-Dichlorobenzene	<1 µg/l	TM208	<1 #					
n-Butylbenzene	<1 µg/l	TM208	<1 #					
1,2-Dichlorobenzene	<1 µg/l	TM208	<1					
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208	<1					
1,2,4-Trichlorobenzene	<1 µg/l	TM208	<1 #					
Hexachlorobutadiene	<1 µg/l	TM208	<1 #					
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208	<1 #					
Naphthalene	<1 µg/l	TM208	<1 #					

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	**LOD/Units**	**Method**	**Customer Sample R**
			Depth (m)
			Sample Type
			Date Sampled
			Sampled Time
			Date Received
			SDG Ref
			Lab Sample No.(s)
			AGS Reference
1,2,3-Trichlorobenzene	<1 µg/l	TM208	UD5 . Water(GW/SW) 09/04/2014 . 10/04/2014 140410-38 9122321 <1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208	<1

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
Calulation				
TM022	Method 2540D, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part120 1981;BS EN 872	Determination of total suspended solids in waters		
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples		
TM045	MEWAM BOD5 2nd Ed.HMSO 1988 / Method 5210B, AWWA/APHA, 20th Ed., 1999; SCA Blue Book 130	Determination of BOD5 (ATU) Filtered by Oxygen Meter on liquids		
TM061	Method for the Determination of EPH,Massachusetts Dept.of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)		
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM107	ISO 6060-1989	Determination of Chemical Oxygen Demand using COD Dr Lange Kit		
TM120	Method 2510B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part 9:1970	Determination of Electrical Conductivity using a Conductivity Meter		
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS		
TM172	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	EPH in Waters		
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters		
TM228	US EPA Method 6010B	Determination of Major Cations in Water by iCap 6500 Duo ICP-OES		
TM245	By GC-FID	Determination of GRO by Headspace in waters		
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter		
TM324		Analysis of Acid Herbicides in Aqueous Sample by LCQQQ		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	9122315	9122330	9122331	9122323	9122322	9122332	9122333	9122334	9122335	9122324
Customer Sample Ref.	BH208	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8	BH3/9	BH5/2	NACW203
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Acid Herbicides by LCQQQ (aq)	15-Apr-2014	15-Apr-2014	15-Apr-2014	15-Apr-2014	15-Apr-2014	15-Apr-2014	15-Apr-2014	15-Apr-2014	15-Apr-2014	15-Apr-2014
Alkalinity as CaCO3	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014
Ammoniacal Nitrogen	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	15-Apr-2014	15-Apr-2014	14-Apr-2014	14-Apr-2014
Anions by Kone (w)	14-Apr-2014	17-Apr-2014	17-Apr-2014	16-Apr-2014	17-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	17-Apr-2014	17-Apr-2014
Conductivity (at 20 deg.C)	14-Apr-2014	14-Apr-2014	14-Apr-2014	11-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	11-Apr-2014	11-Apr-2014
Dissolved Metals by ICP-MS	17-Apr-2014	17-Apr-2014	22-Apr-2014	22-Apr-2014	16-Apr-2014	16-Apr-2014	16-Apr-2014	16-Apr-2014	17-Apr-2014	17-Apr-2014
EPH (DRO) (C10-C40) Aqueous (W)	15-Apr-2014	15-Apr-2014	15-Apr-2014	16-Apr-2014	15-Apr-2014	15-Apr-2014	15-Apr-2014	15-Apr-2014	15-Apr-2014	16-Apr-2014
GRO by GC-FID (W)	11-Apr-2014	11-Apr-2014	11-Apr-2014	11-Apr-2014	11-Apr-2014	11-Apr-2014	11-Apr-2014	11-Apr-2014	11-Apr-2014	11-Apr-2014
Metals by iCap-OES Dissolved (W)	15-Apr-2014	14-Apr-2014	14-Apr-2014	15-Apr-2014	14-Apr-2014	15-Apr-2014	15-Apr-2014	15-Apr-2014	15-Apr-2014	15-Apr-2014
Nitrite by Kone (w)	14-Apr-2014	14-Apr-2014	14-Apr-2014	15-Apr-2014	15-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	15-Apr-2014
SVOC MS (W) - Aqueous	15-Apr-2014	15-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	15-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014
Total EPH (aq)	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014
VOC MS (W)	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014

Lab Sample No(s)	9122325	9122326	9122327	9122328	9122329	9122307	9122308	9122309	9122311	9122313
Customer Sample Ref.	NACW205	NACW212	NACW219	NACW228	NACW229	SW201	SW202	SW204	SW205	SW206
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Acid Herbicides by LCQQQ (aq)	15-Apr-2014	15-Apr-2014	15-Apr-2014	15-Apr-2014	16-Apr-2014	15-Apr-2014	16-Apr-2014	15-Apr-2014	14-Apr-2014	14-Apr-2014
Alkalinity as CaCO3	13-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	13-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	11-Apr-2014	14-Apr-2014
Alkalinity Filtered as CaCO3						13-Apr-2014	16-Apr-2014	16-Apr-2014	13-Apr-2014	17-Apr-2014
Ammoniacal Nitrogen	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014
Anions by Kone (w)	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	23-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	22-Apr-2014
Conductivity (at 20 deg.C)	11-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	11-Apr-2014	11-Apr-2014	11-Apr-2014	14-Apr-2014	14-Apr-2014
Dissolved Metals by ICP-MS	17-Apr-2014	16-Apr-2014	16-Apr-2014	16-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014
EPH (DRO) (C10-C40) Aqueous (W)	16-Apr-2014	15-Apr-2014	15-Apr-2014	15-Apr-2014	15-Apr-2014	16-Apr-2014	16-Apr-2014	16-Apr-2014	15-Apr-2014	15-Apr-2014
GRO by GC-FID (W)	11-Apr-2014	11-Apr-2014	11-Apr-2014	11-Apr-2014	11-Apr-2014	11-Apr-2014	11-Apr-2014	11-Apr-2014	11-Apr-2014	11-Apr-2014
Ionic Balance						17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014
Metals by iCap-OES Dissolved (W)	15-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	15-Apr-2014	15-Apr-2014	16-Apr-2014	16-Apr-2014	15-Apr-2014	15-Apr-2014
Nitrite by Kone (w)	15-Apr-2014	15-Apr-2014	15-Apr-2014	15-Apr-2014	14-Apr-2014	15-Apr-2014	15-Apr-2014	15-Apr-2014	14-Apr-2014	14-Apr-2014
pH Value						11-Apr-2014	15-Apr-2014	15-Apr-2014	11-Apr-2014	11-Apr-2014
Suspended Solids						14-Apr-2014	15-Apr-2014	15-Apr-2014	14-Apr-2014	15-Apr-2014
SVOC MS (W) - Aqueous	17-Apr-2014	15-Apr-2014	15-Apr-2014	15-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	15-Apr-2014	17-Apr-2014
Total EPH (aq)	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014
Total Organic and Inorganic Carbon						15-Apr-2014	15-Apr-2014	15-Apr-2014	15-Apr-2014	15-Apr-2014
VOC MS (W)	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014

Lab Sample No(s)	9122314	9122317	9122318	9122320	9122321
Customer Sample Ref.	SW207	UD1	UD3	UD4	UD5
AGS Ref.					
Depth					
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Acid Herbicides by LCQQQ (aq)	15-Apr-2014	16-Apr-2014	15-Apr-2014	22-Apr-2014	15-Apr-2014
Alkalinity as CaCO3	11-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014
Alkalinity Filtered as CaCO3	13-Apr-2014				
Ammoniacal Nitrogen	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014
Anions by Kone (w)	22-Apr-2014	14-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014
Conductivity (at 20 deg.C)	11-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014
Dissolved Metals by ICP-MS	16-Apr-2014	16-Apr-2014	17-Apr-2014	16-Apr-2014	16-Apr-2014
EPH (DRO) (C10-C40) Aqueous (W)	15-Apr-2014	15-Apr-2014	16-Apr-2014	16-Apr-2014	16-Apr-2014
GRO by GC-FID (W)	11-Apr-2014	11-Apr-2014	11-Apr-2014	11-Apr-2014	11-Apr-2014
Ionic Balance	22-Apr-2014				
Metals by iCap-OES Dissolved (W)	14-Apr-2014	15-Apr-2014	15-Apr-2014	14-Apr-2014	14-Apr-2014
Nitrite by Kone (w)	14-Apr-2014	14-Apr-2014	14-Apr-2014	15-Apr-2014	15-Apr-2014
pH Value	11-Apr-2014				
Suspended Solids	15-Apr-2014				
SVOC MS (W) - Aqueous	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014
Total EPH (aq)	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014	17-Apr-2014
Total Organic and Inorganic Carbon	15-Apr-2014				
VOC MS (W)	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014	14-Apr-2014

CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

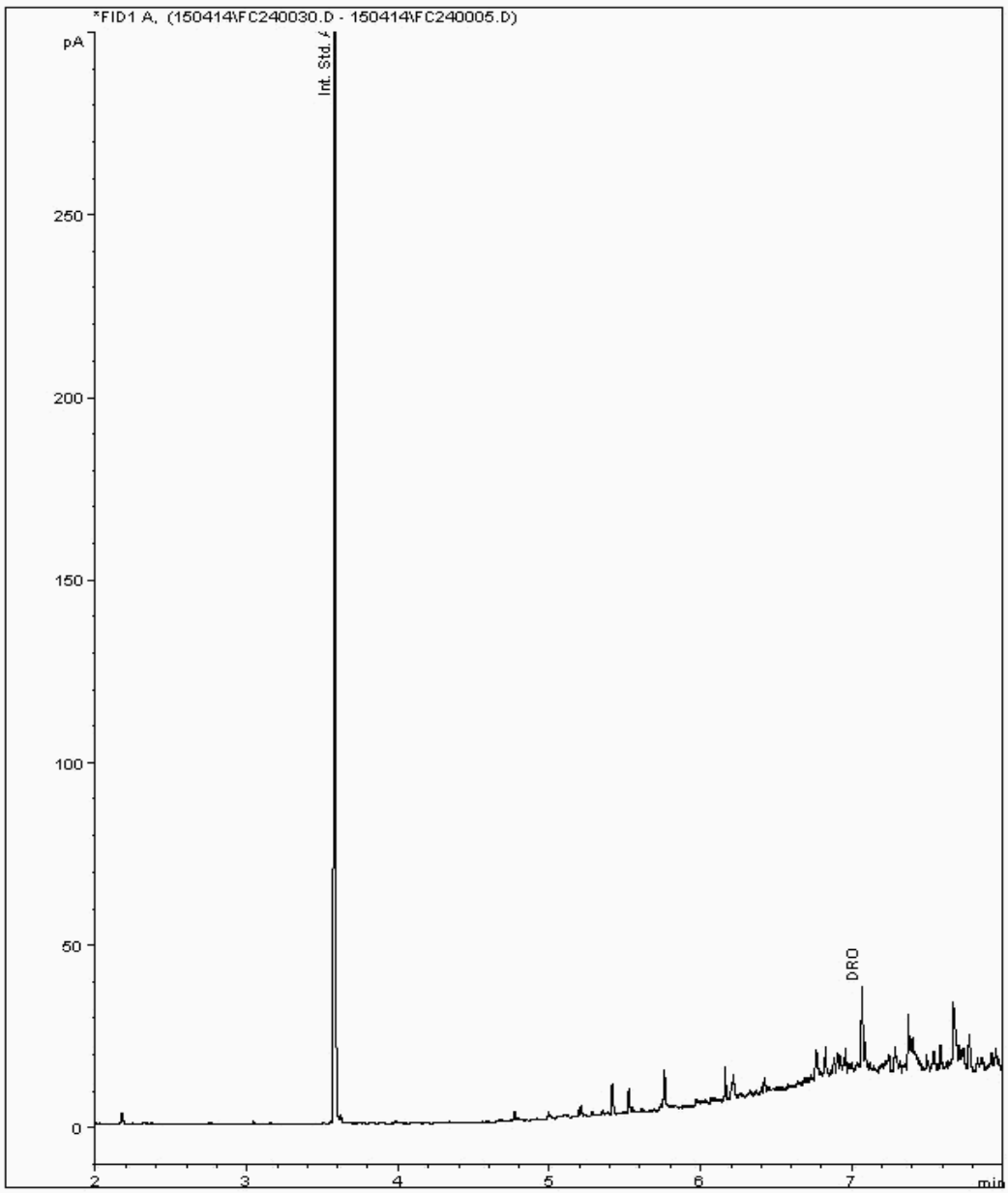
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9128797
Sample ID : NACW203

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8675157-9128797
Date Acquired : 16/04/2014 01:19:08 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

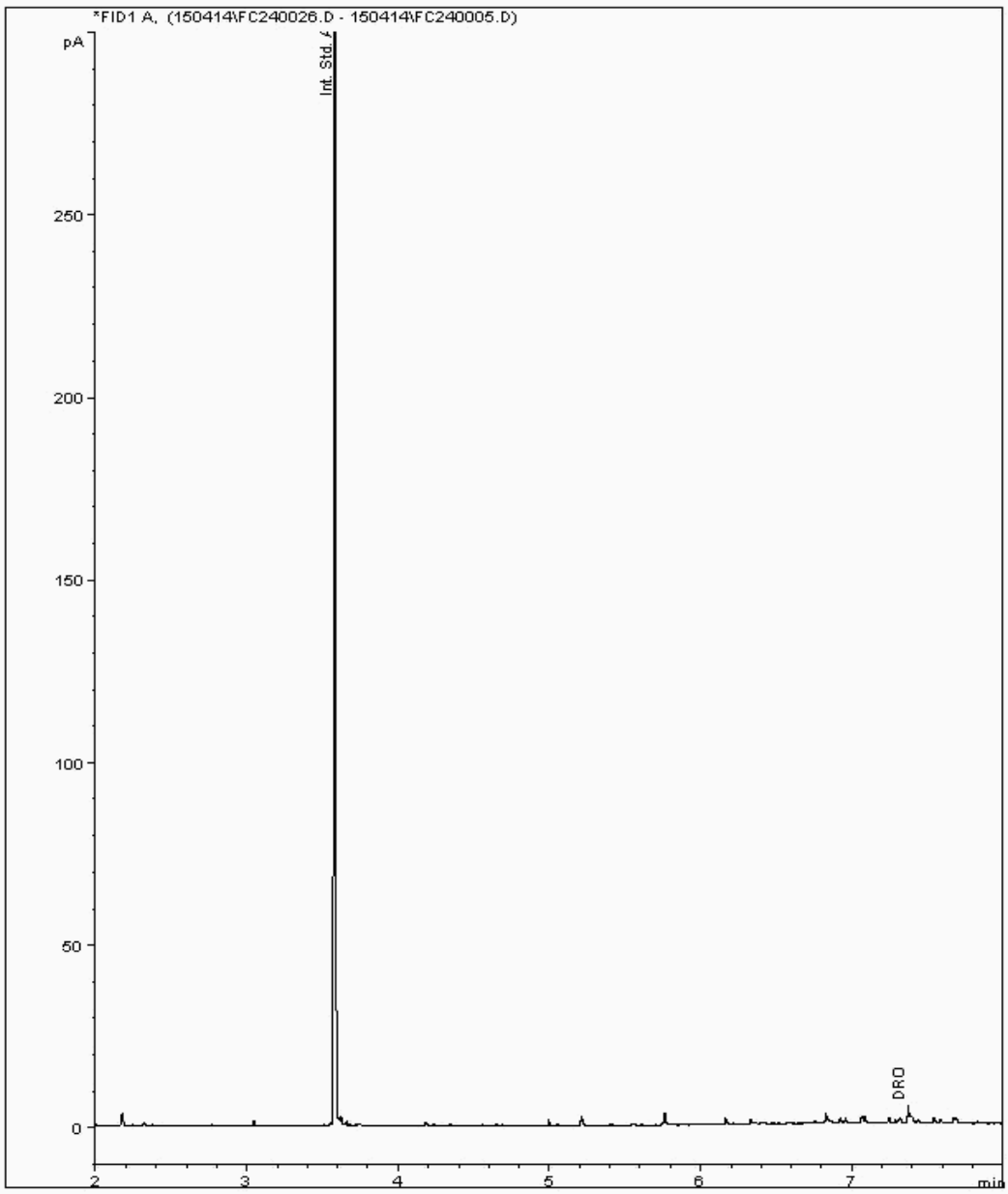
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9128827
Sample ID : BH3/4

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8675143-9128827
Date Acquired : 15/04/2014 23:49:58 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

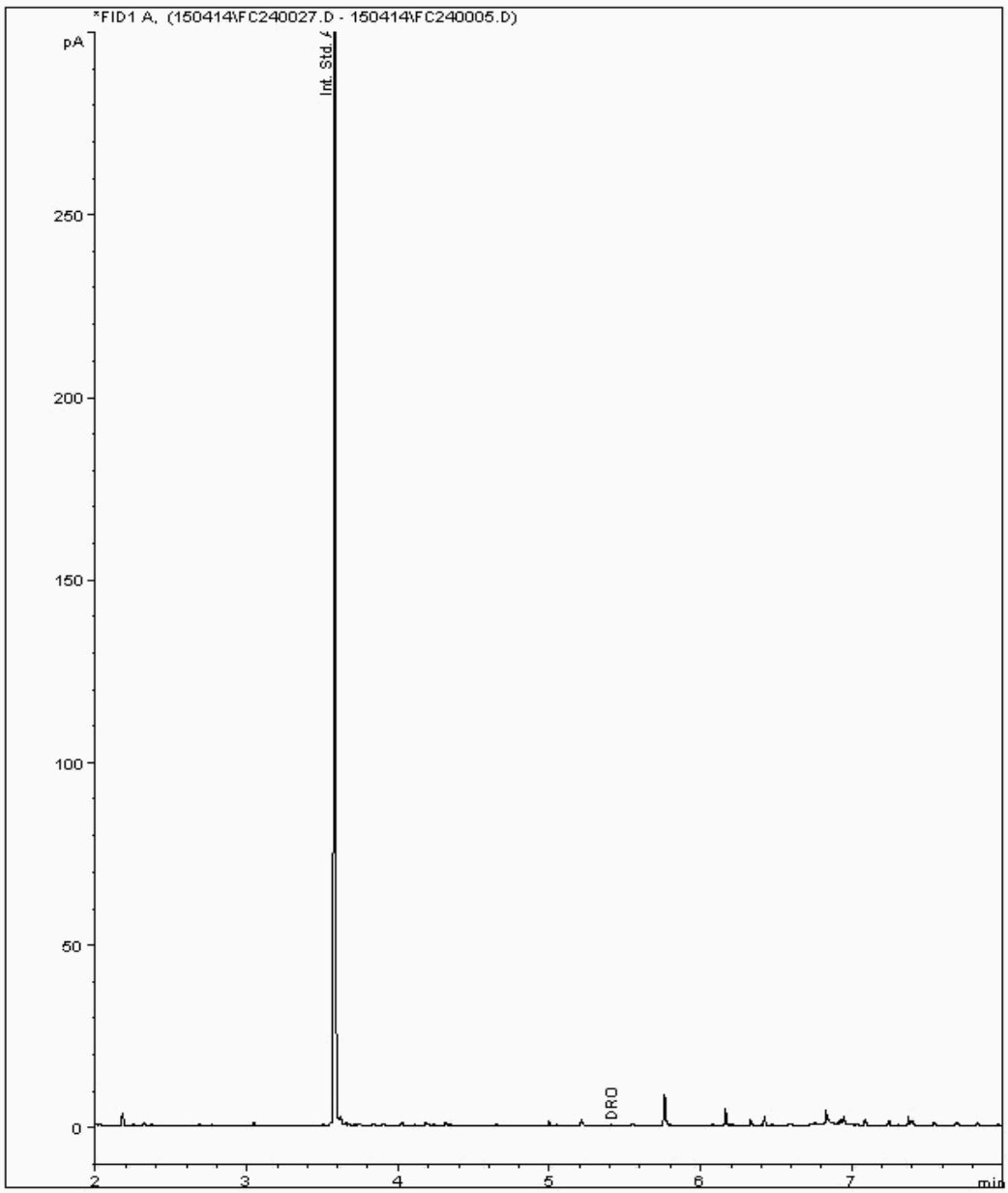
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9128845
Sample ID : NACW205

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8675171-9128845
Date Acquired : 16/04/2014 00:12:09 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

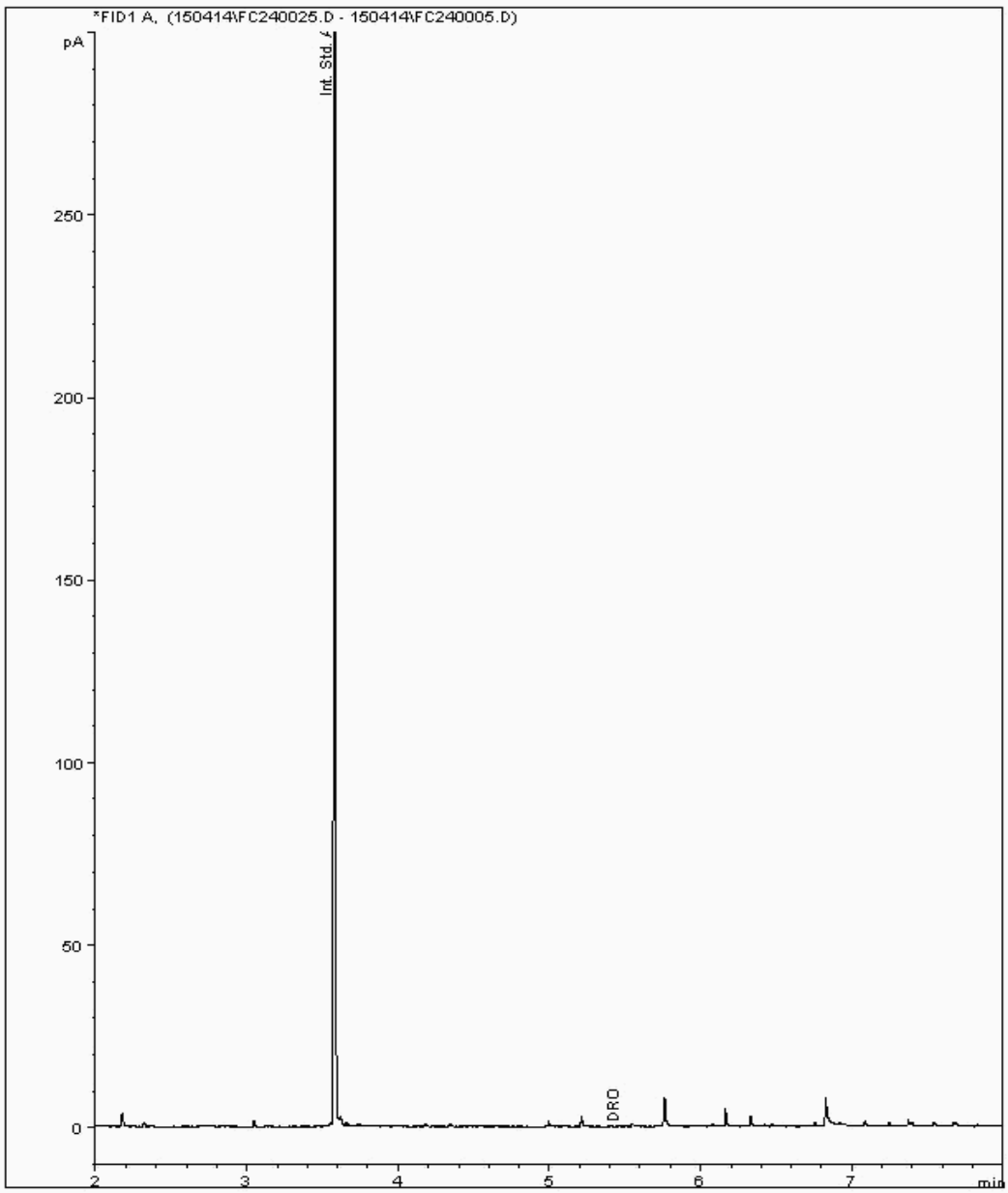
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9129631
Sample ID : SW204

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8674969-9129631
Date Acquired : 15/04/2014 23:27:50 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

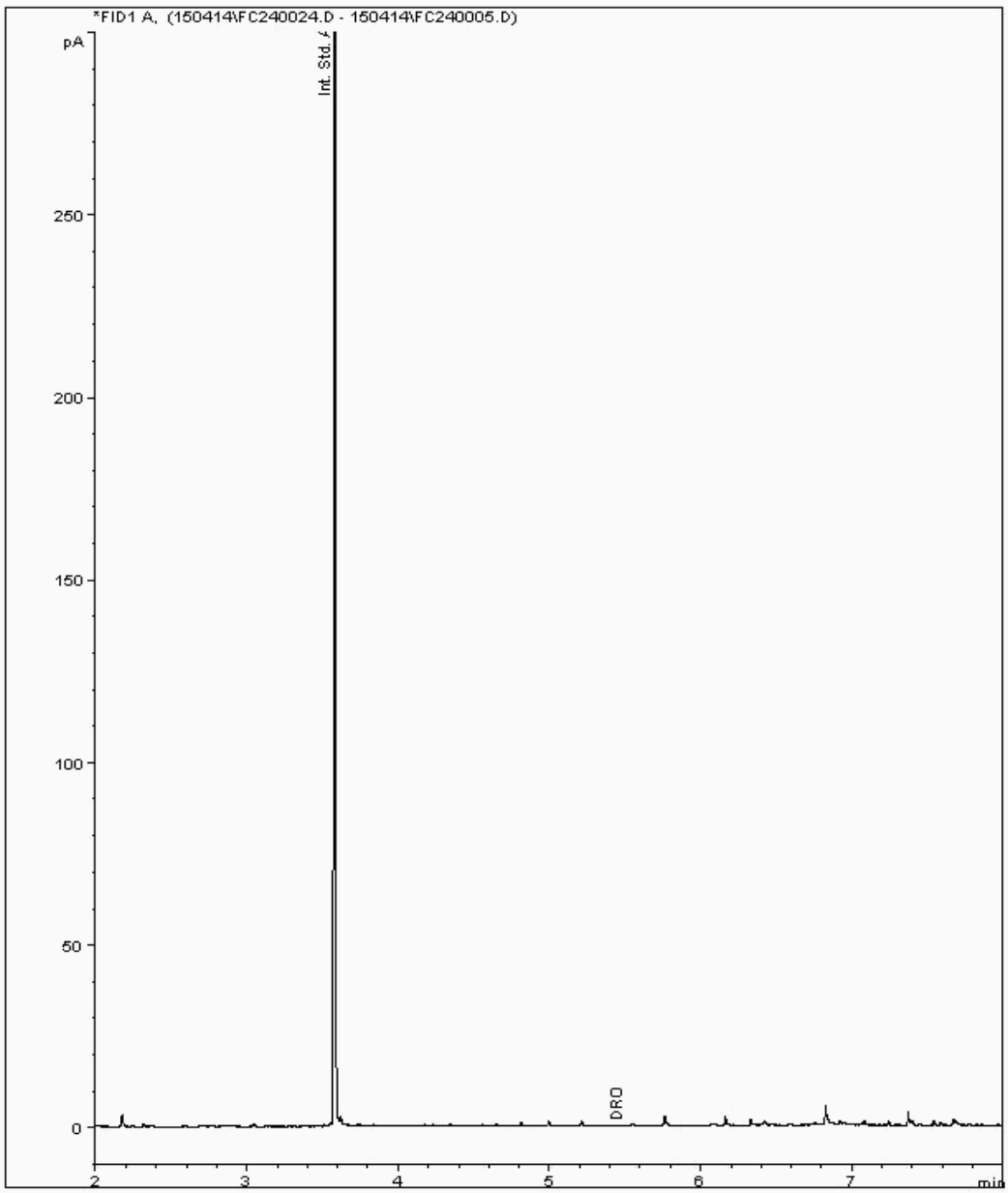
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9129664
Sample ID : SW202

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8674952-9129664
Date Acquired : 15/04/2014 23:05:36 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

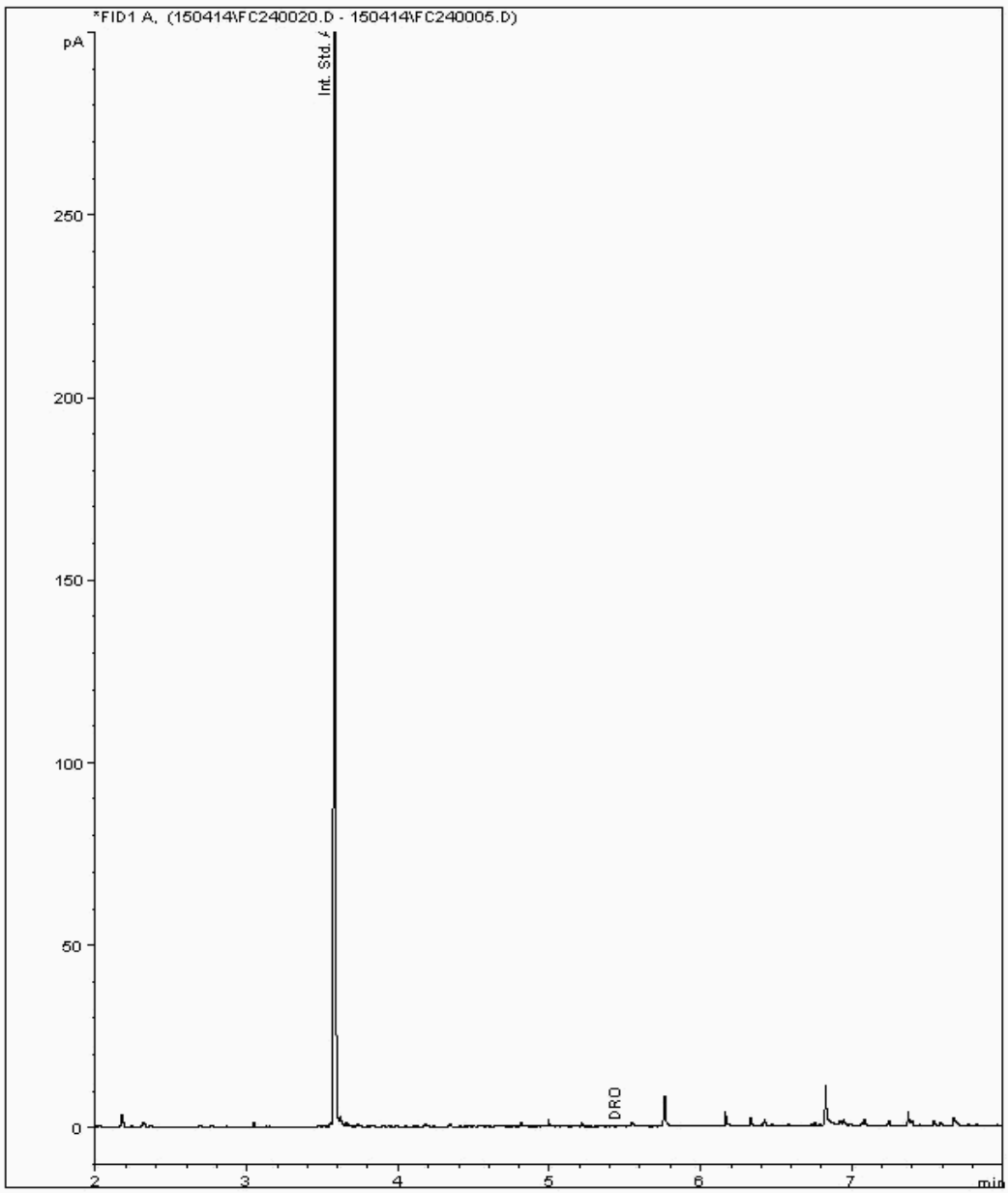
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9129694
Sample ID : SW201

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8674935-9129694
Date Acquired : 15/04/2014 21:37:30 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

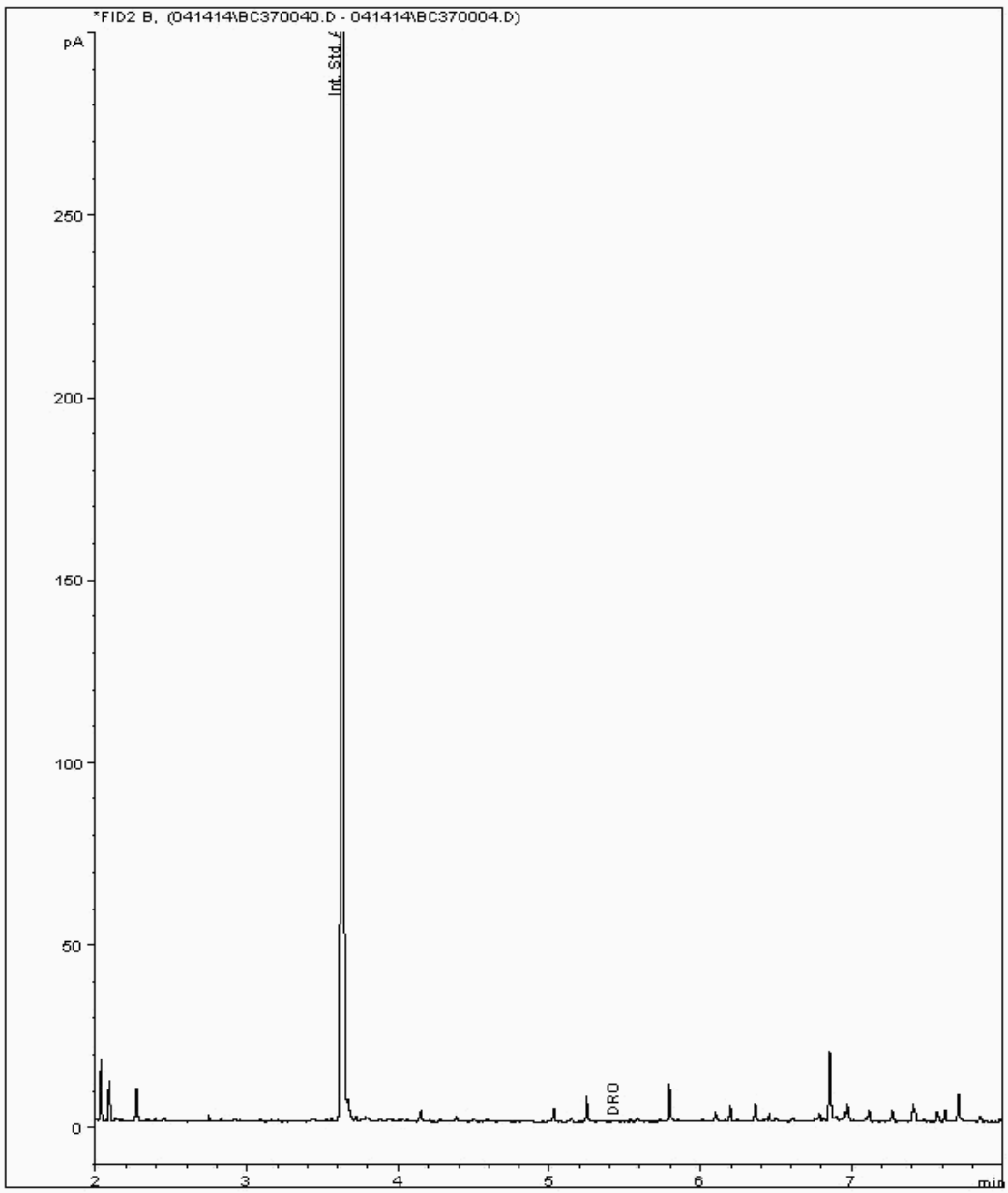
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9129717
Sample ID : SW207

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8675020-9129717
Date Acquired : 15/04/2014 06:28:45 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

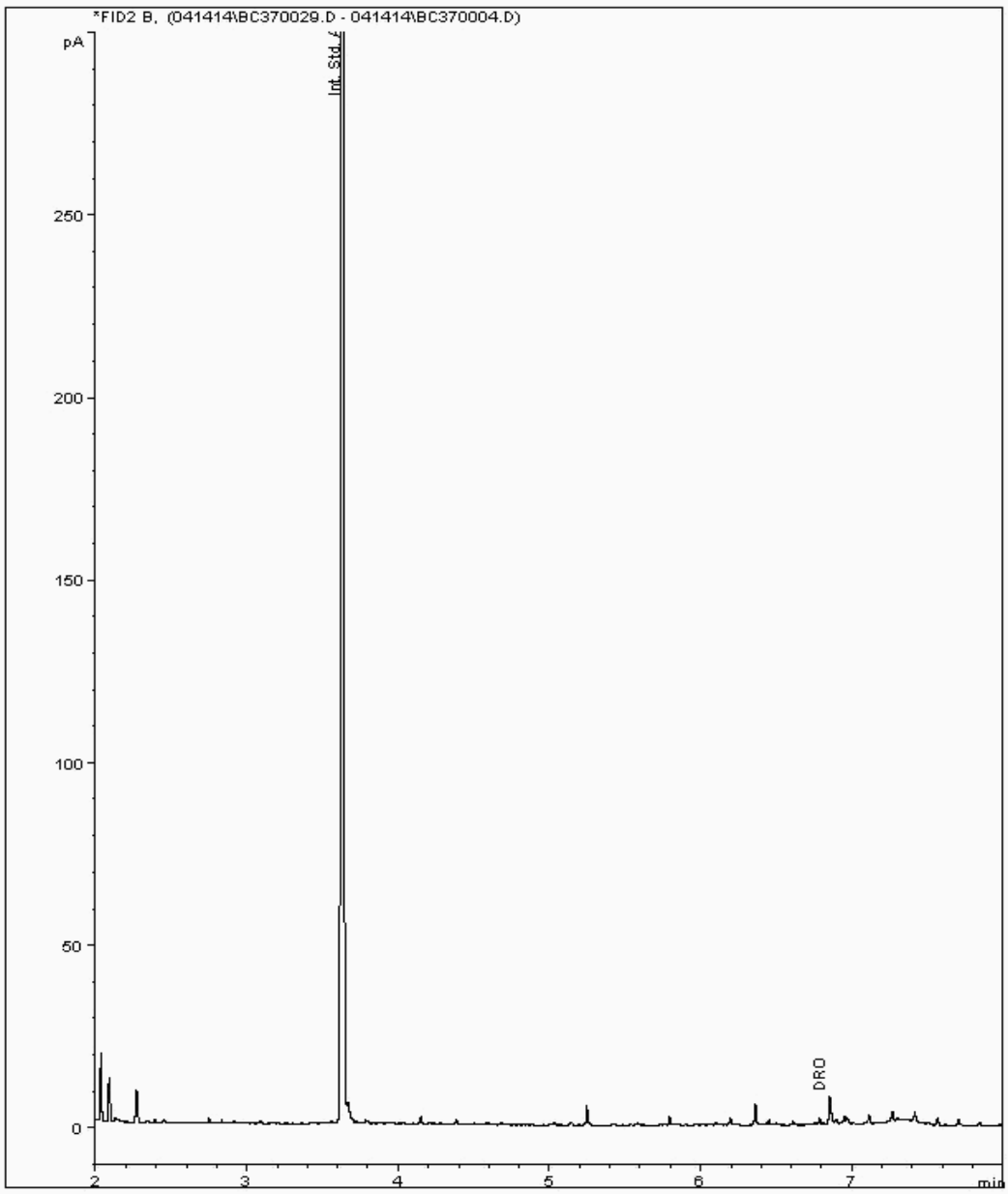
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9129727
Sample ID : BH5/2

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8675352-9129727
Date Acquired : 15/04/2014 02:24:52 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

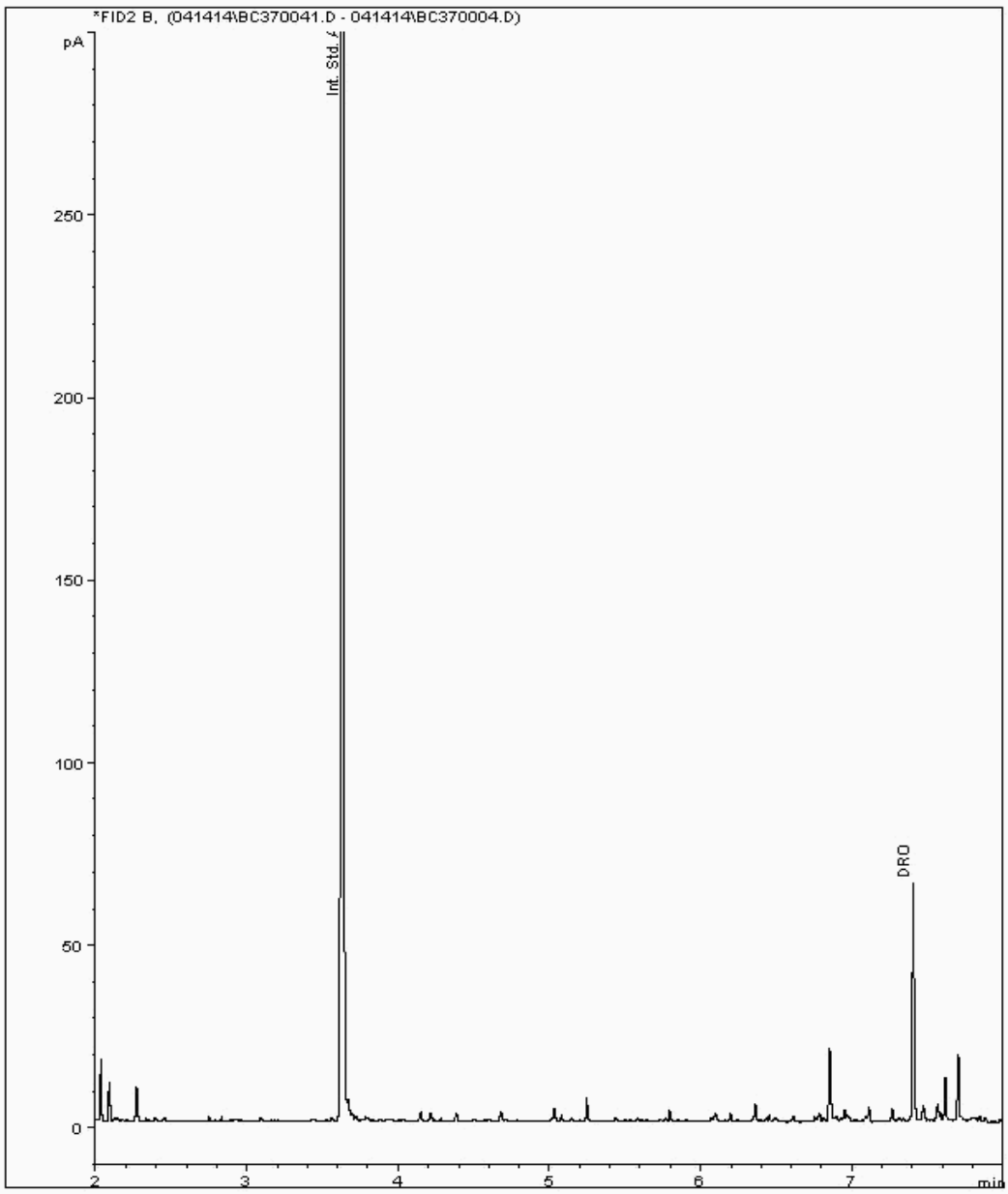
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9130440
Sample ID : SW206

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8675001-9130440
Date Acquired : 15/04/2014 06:50:42 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

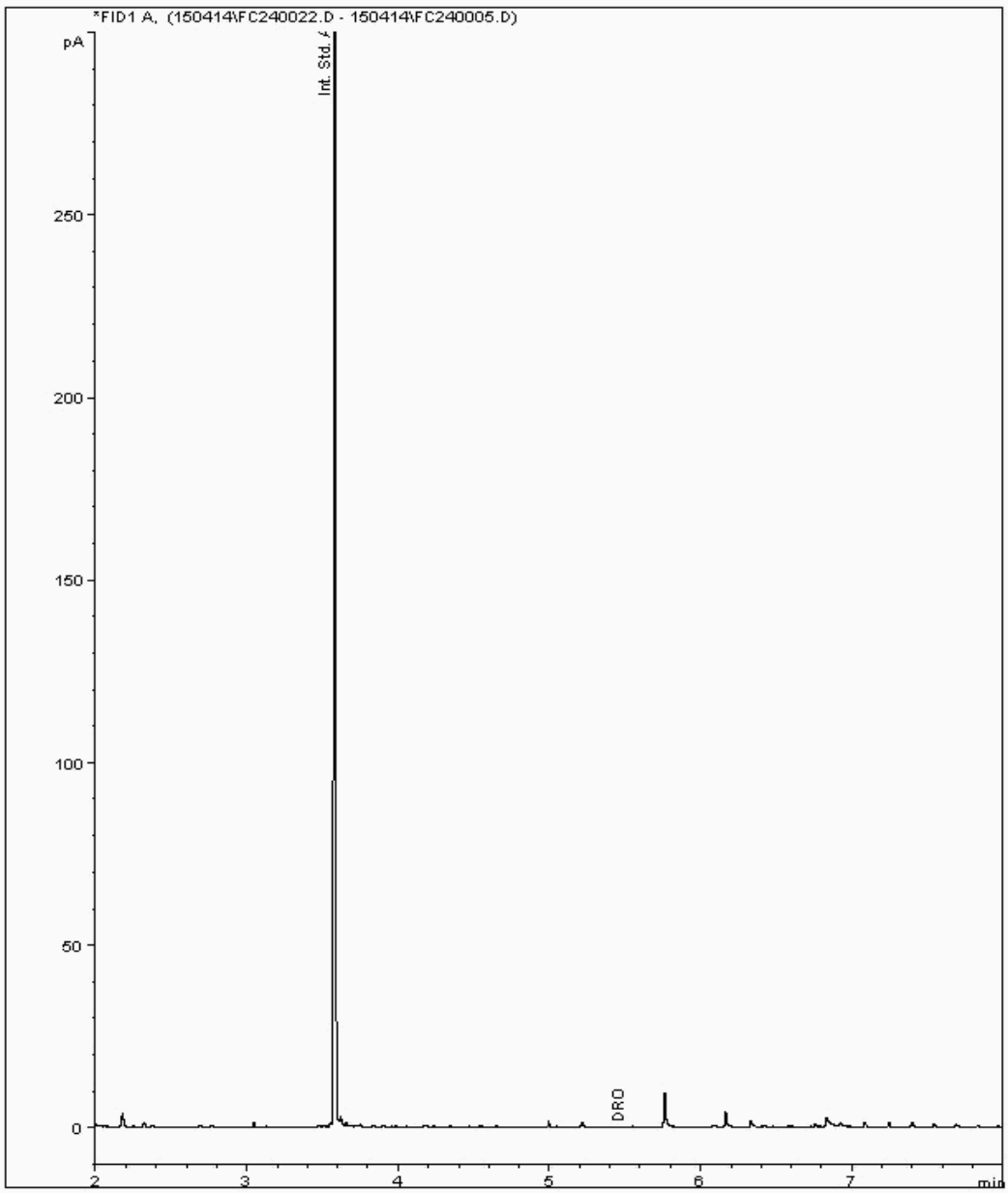
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9130913
Sample ID : UD3

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8675076-9130913
Date Acquired : 15/04/2014 22:21:26 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

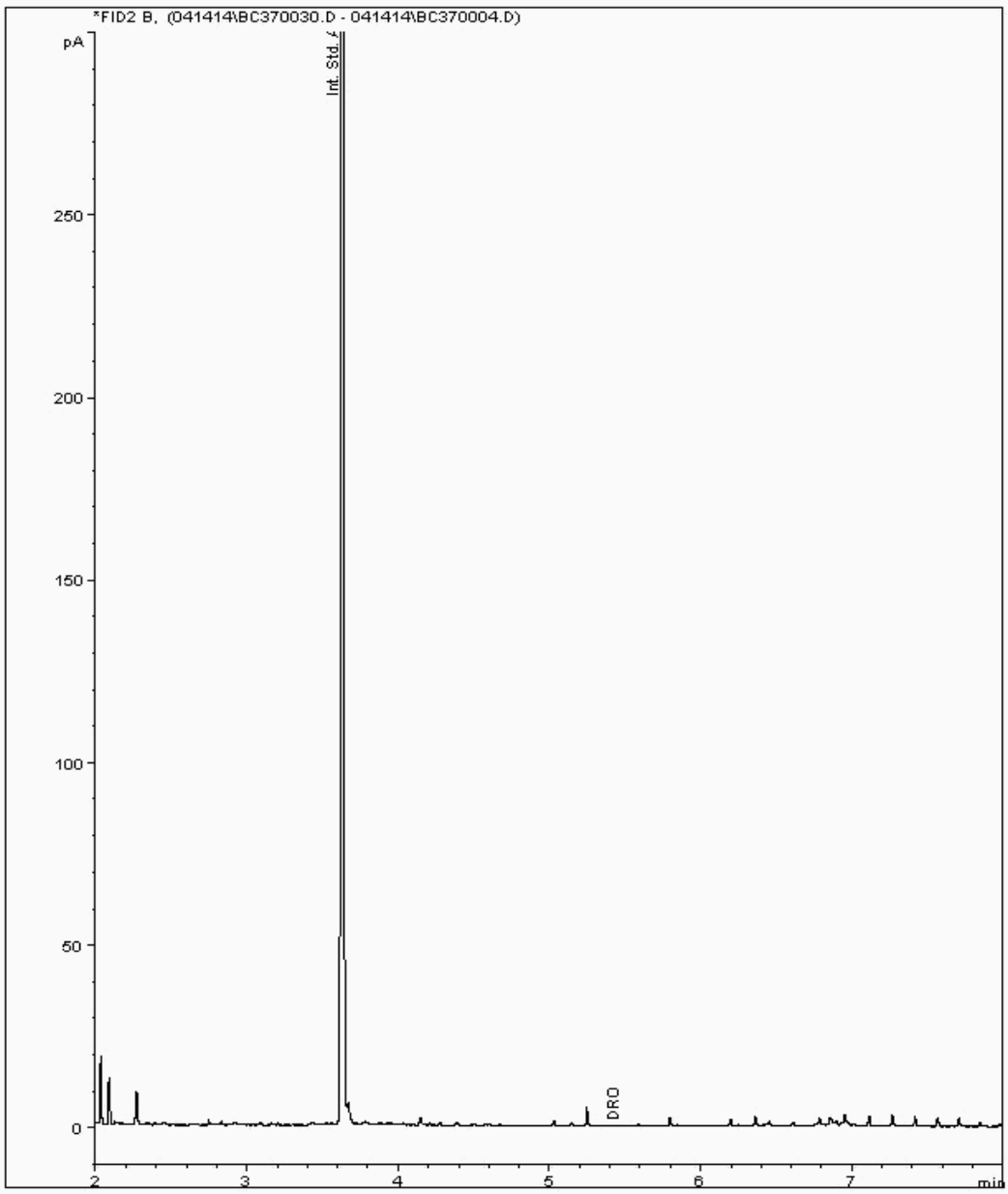
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: EPH (DRO) (C10-C40) Aqueous (W) **Sample No :** 9130948 **Sample ID :** BH208 **Depth :**

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8675038-9130948
Date Acquired : 15/04/2014 02:47:00 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

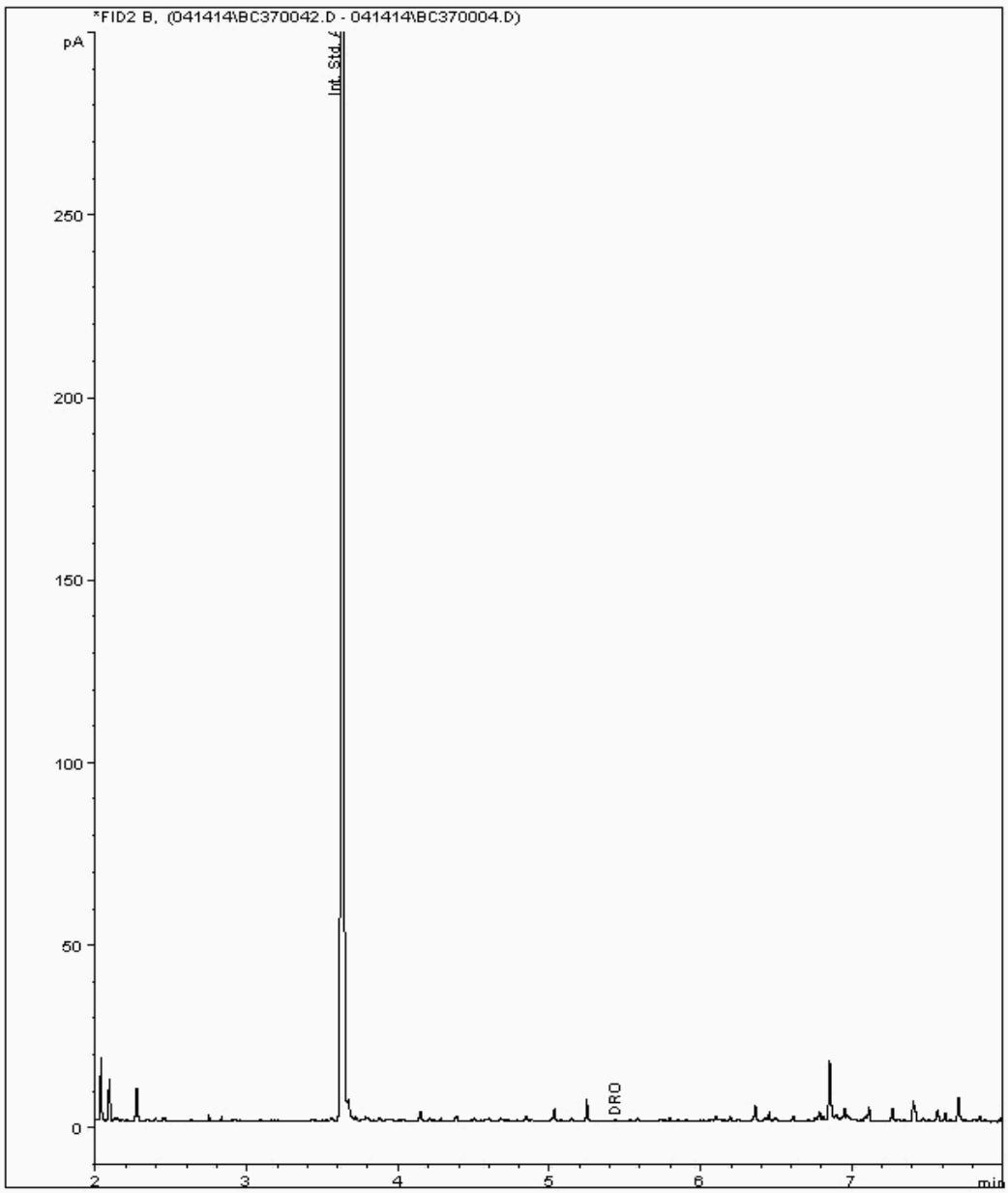
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9131044
Sample ID : SW205

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8674985-9131044
Date Acquired : 15/04/2014 07:12:28 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

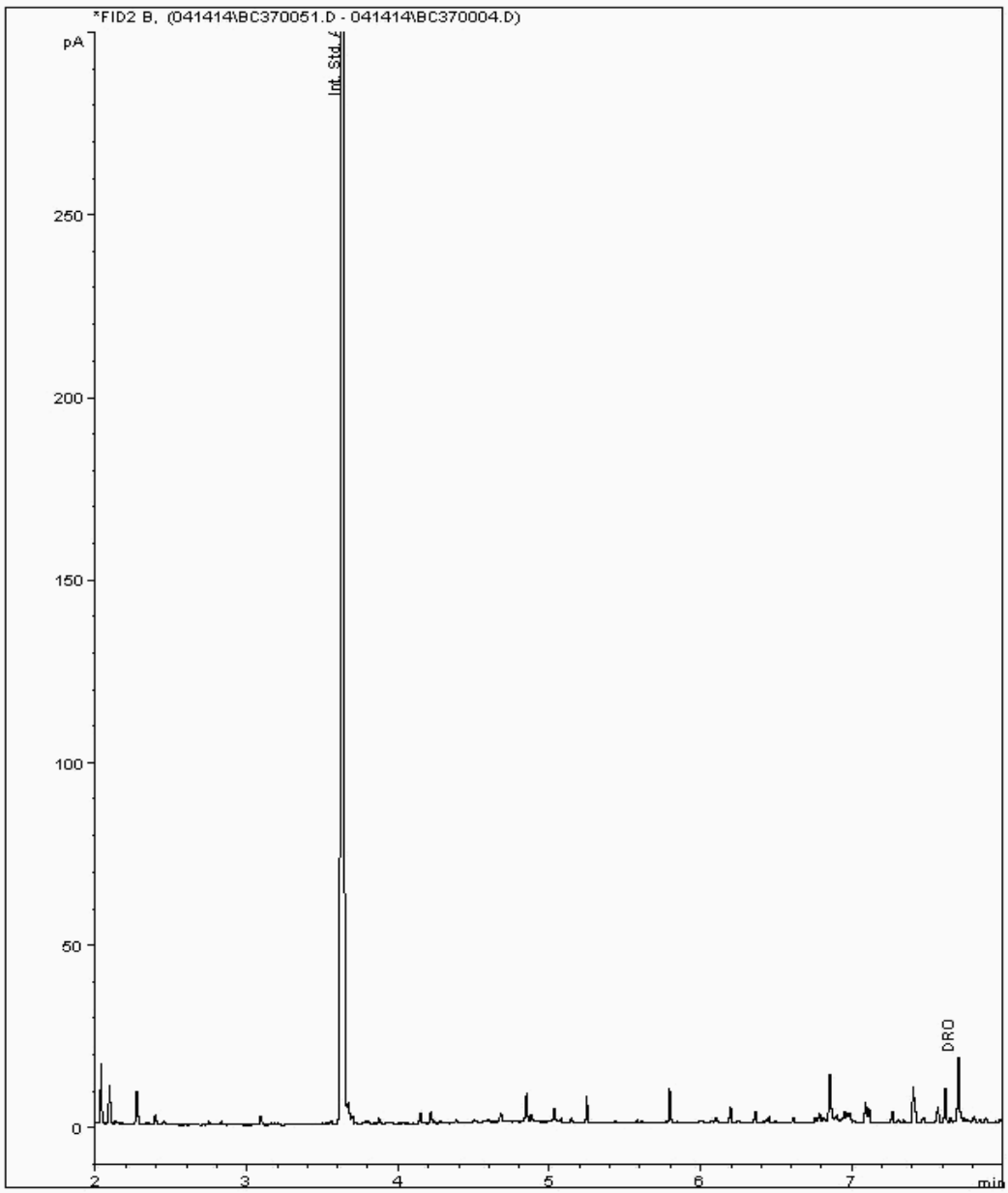
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9131257
Sample ID : UD1

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8675058-9131257
Date Acquired : 15/04/2014 13:00:00 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

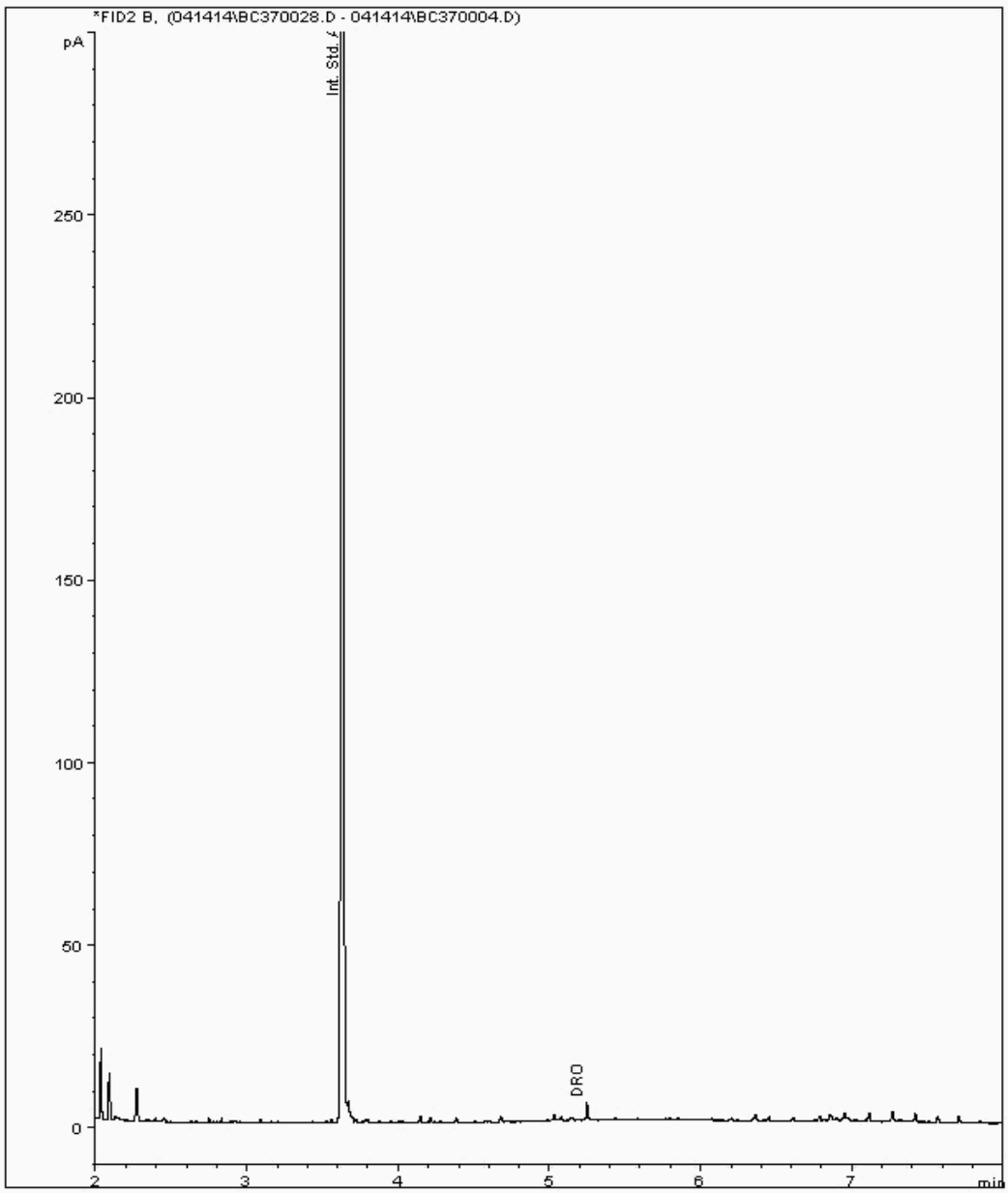
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9131502
Sample ID : BH3/9

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8675334-9131502
Date Acquired : 15/04/2014 02:02:30 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

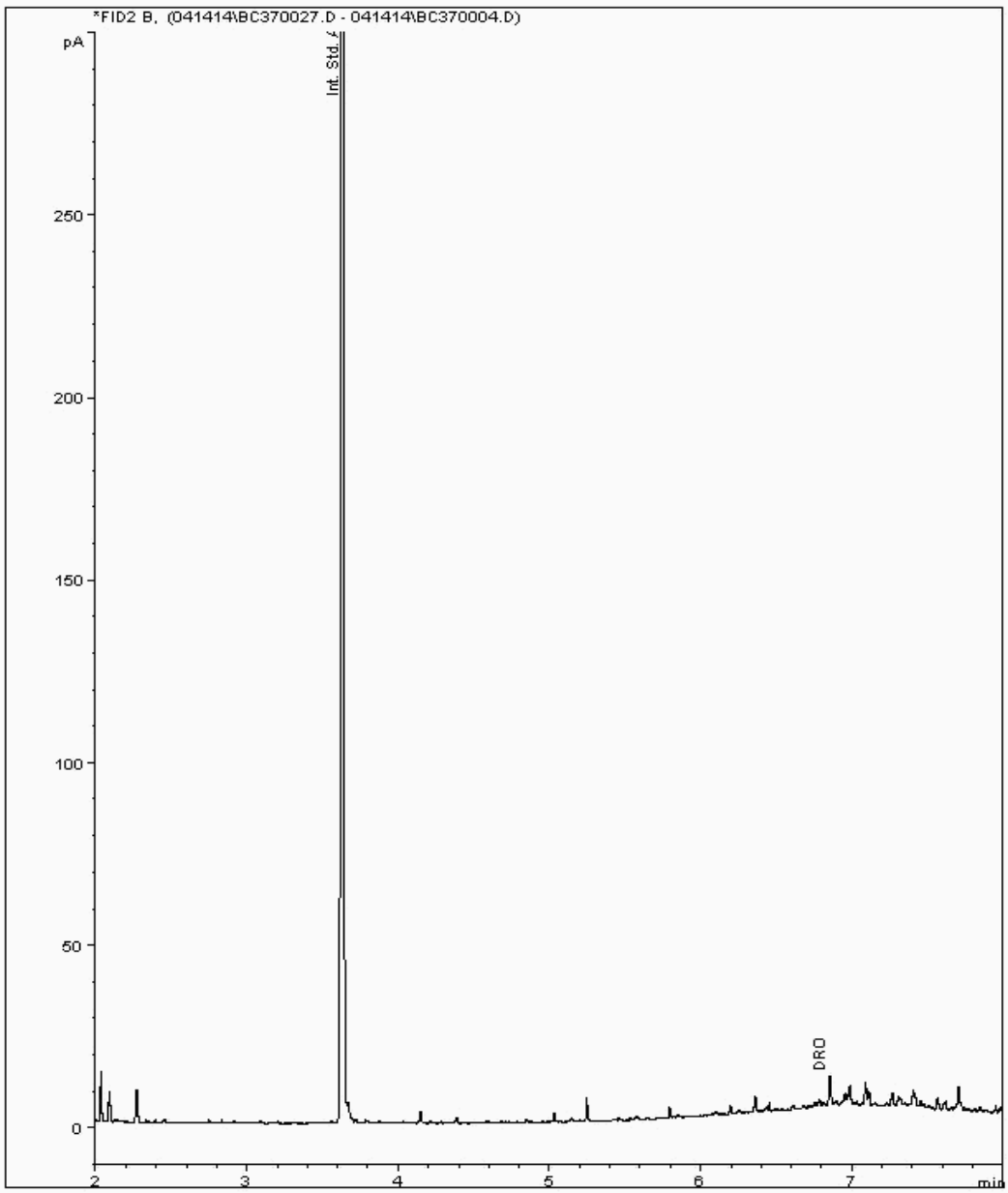
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9131567
Sample ID : BH3/6

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8675291-9131567
Date Acquired : 15/04/2014 01:40:23 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

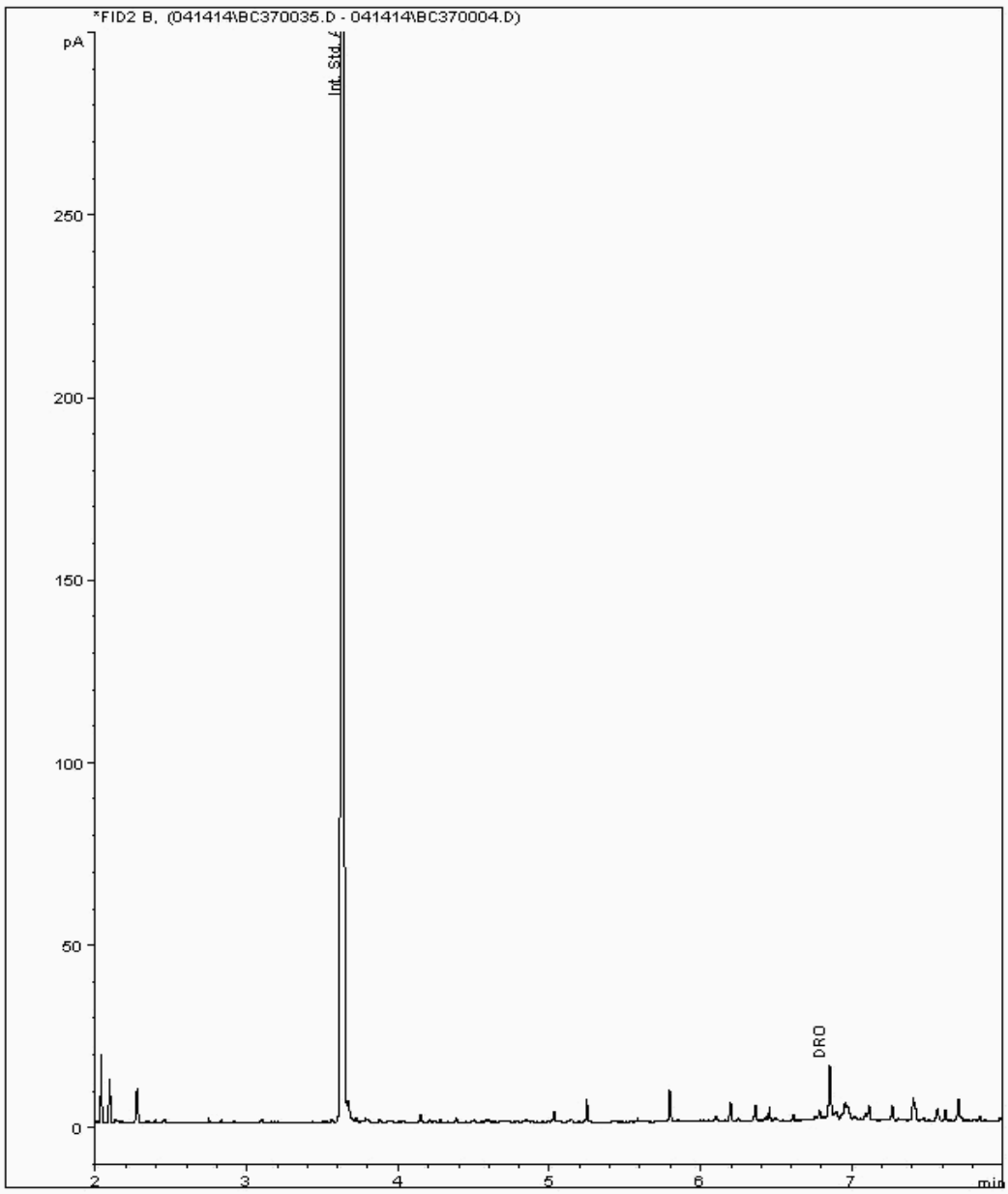
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9131588
Sample ID : NACW229

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8675230-9131588
Date Acquired : 15/04/2014 04:38:12 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

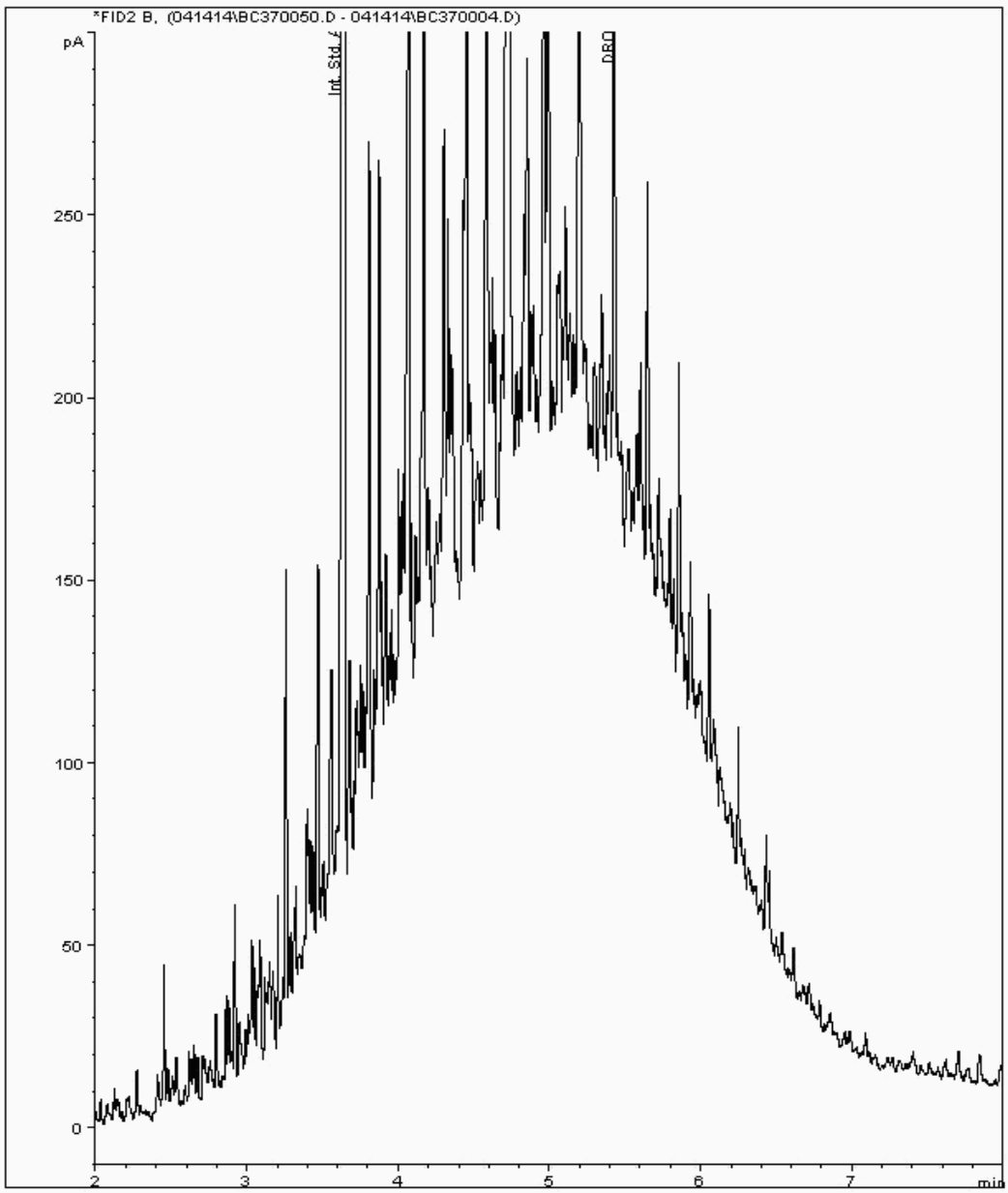
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9131647
Sample ID : BH3/8

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8675317-9131647
Date Acquired : 15/04/2014 12:38:15 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

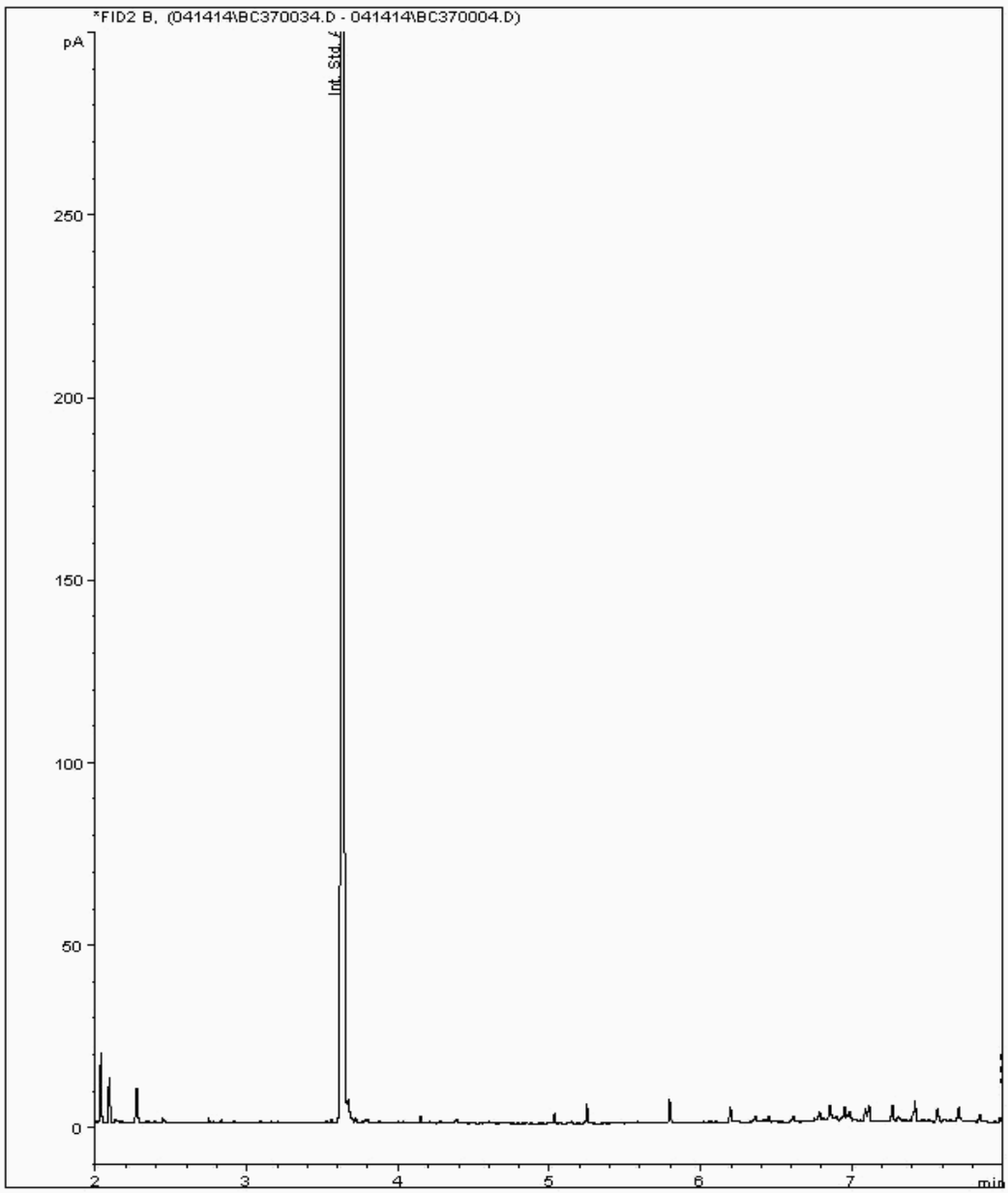
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9131664
Sample ID : BH3/2

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8675250-9131664
Date Acquired : 15/04/2014 04:15:50 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

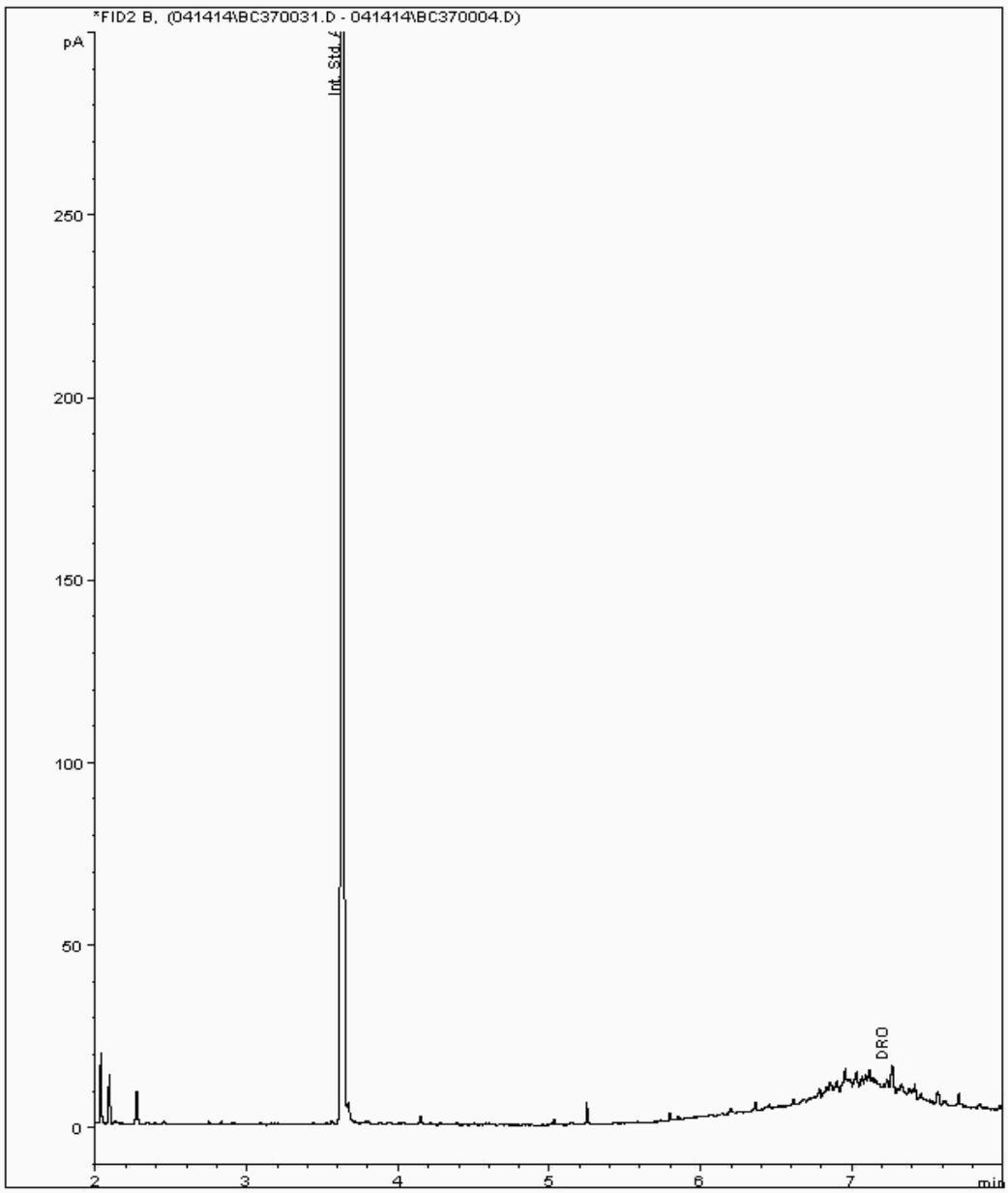
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9131691
Sample ID : BH3/3

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8675264-9131691
Date Acquired : 15/04/2014 03:09:07 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

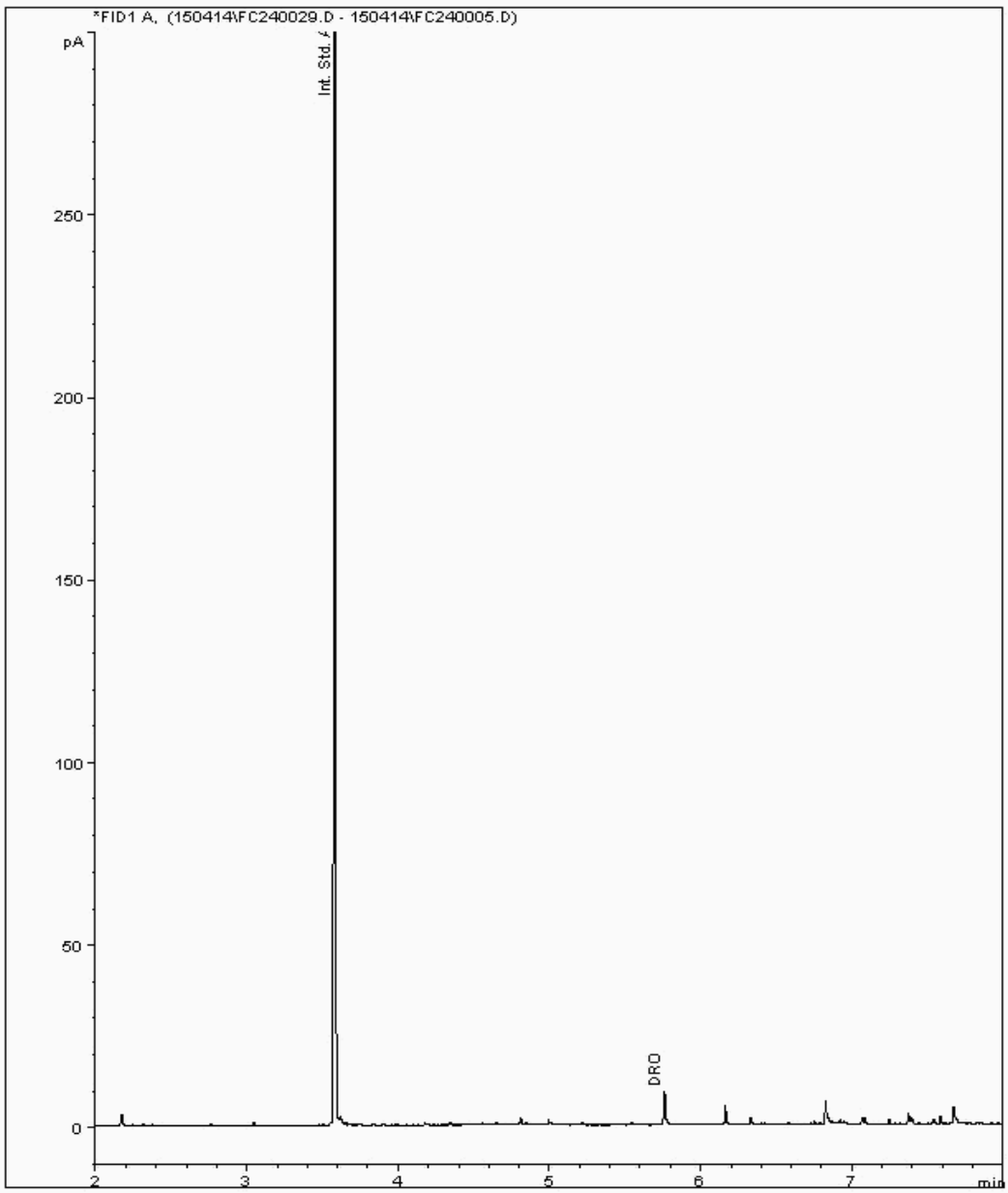
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9132951
Sample ID : UD4

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8675095-9132951
Date Acquired : 16/04/2014 00:56:52 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

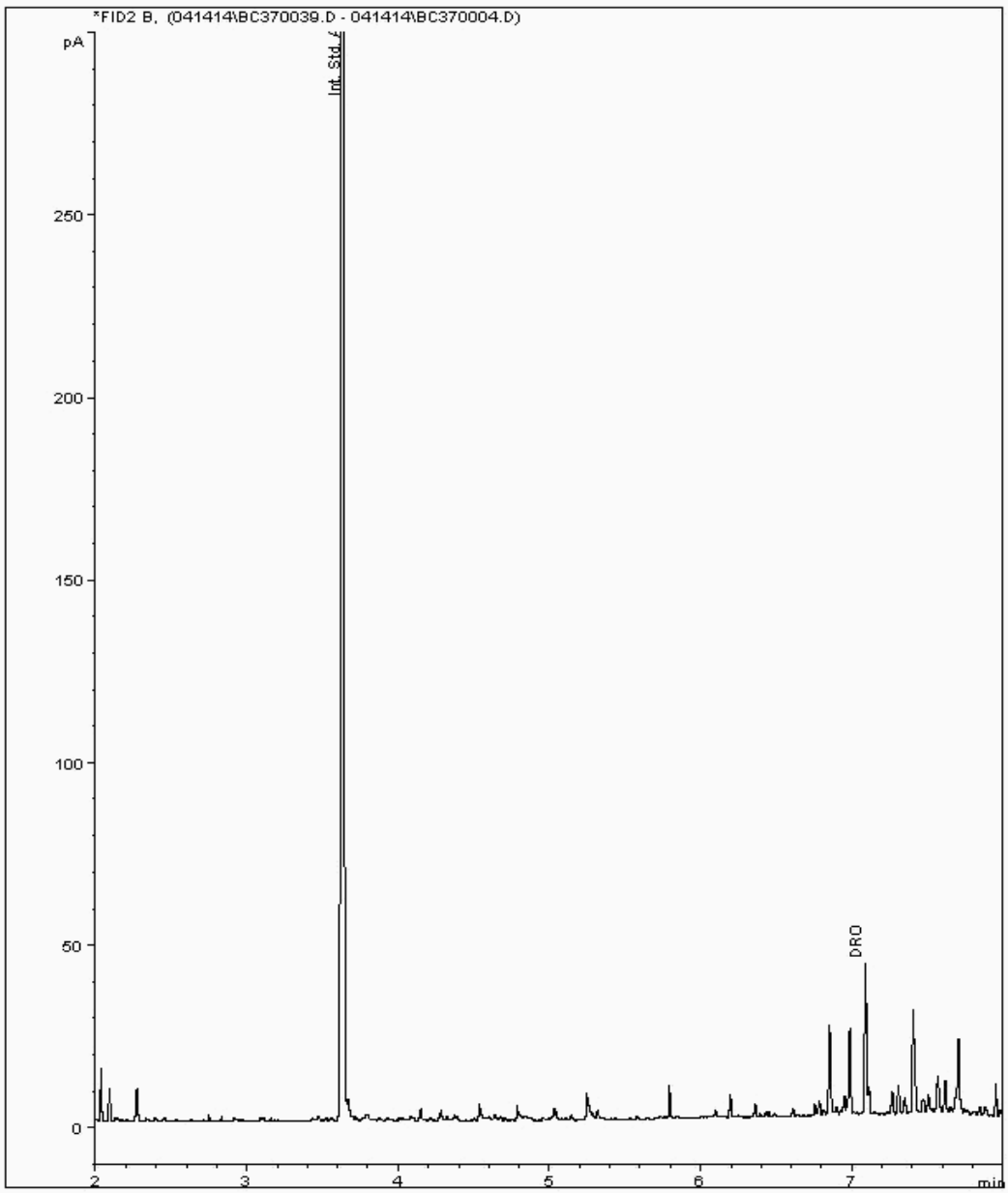
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9132976
Sample ID : BH3/5

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8675127-9132976
Date Acquired : 15/04/2014 06:07:00 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

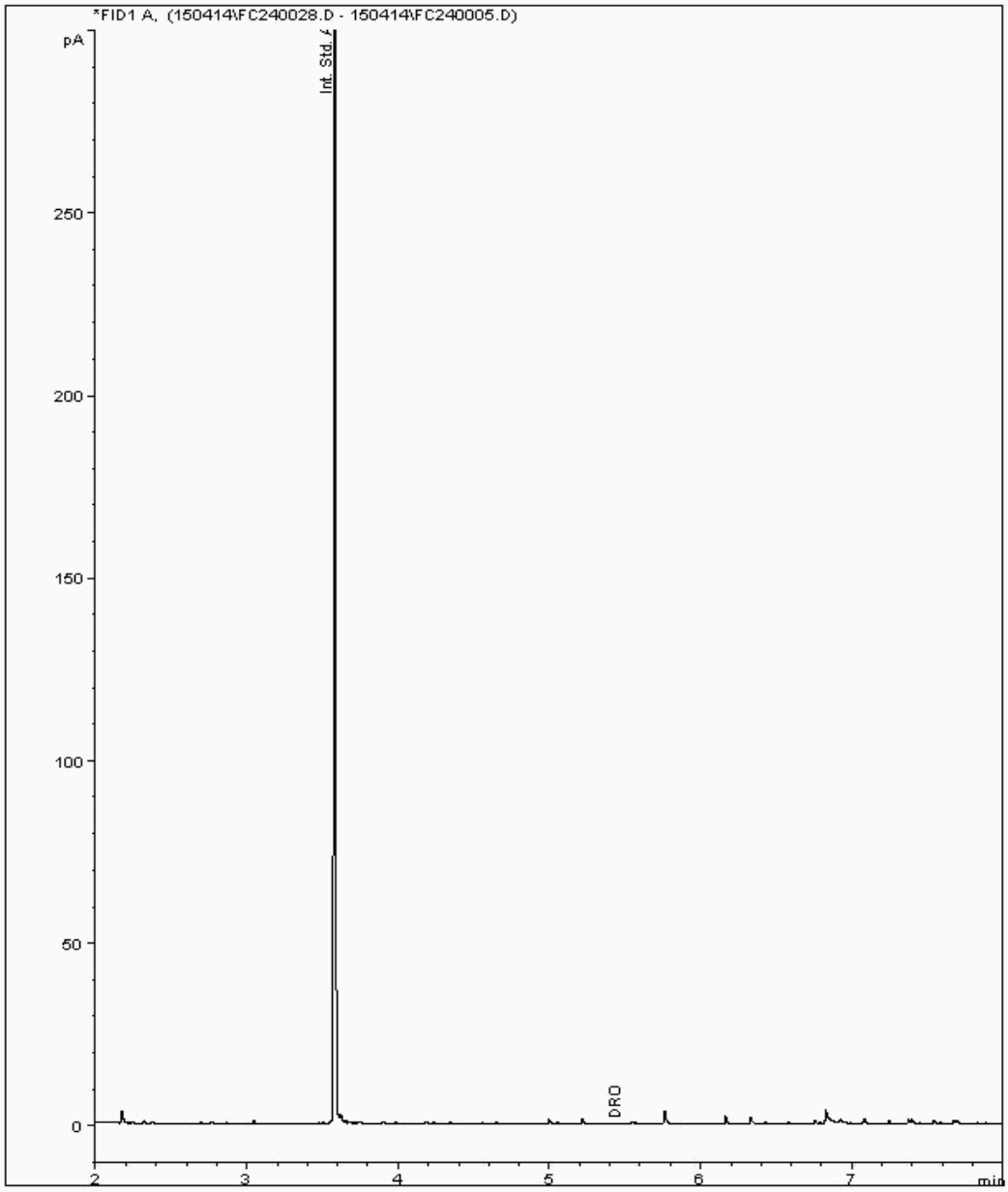
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: EPH (DRO) (C10-C40) Aqueous (W) **Sample No :** 9133000 **Sample ID :** UD5 **Depth :**

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8675111-9133000
Date Acquired : 16/04/2014 00:34:38 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

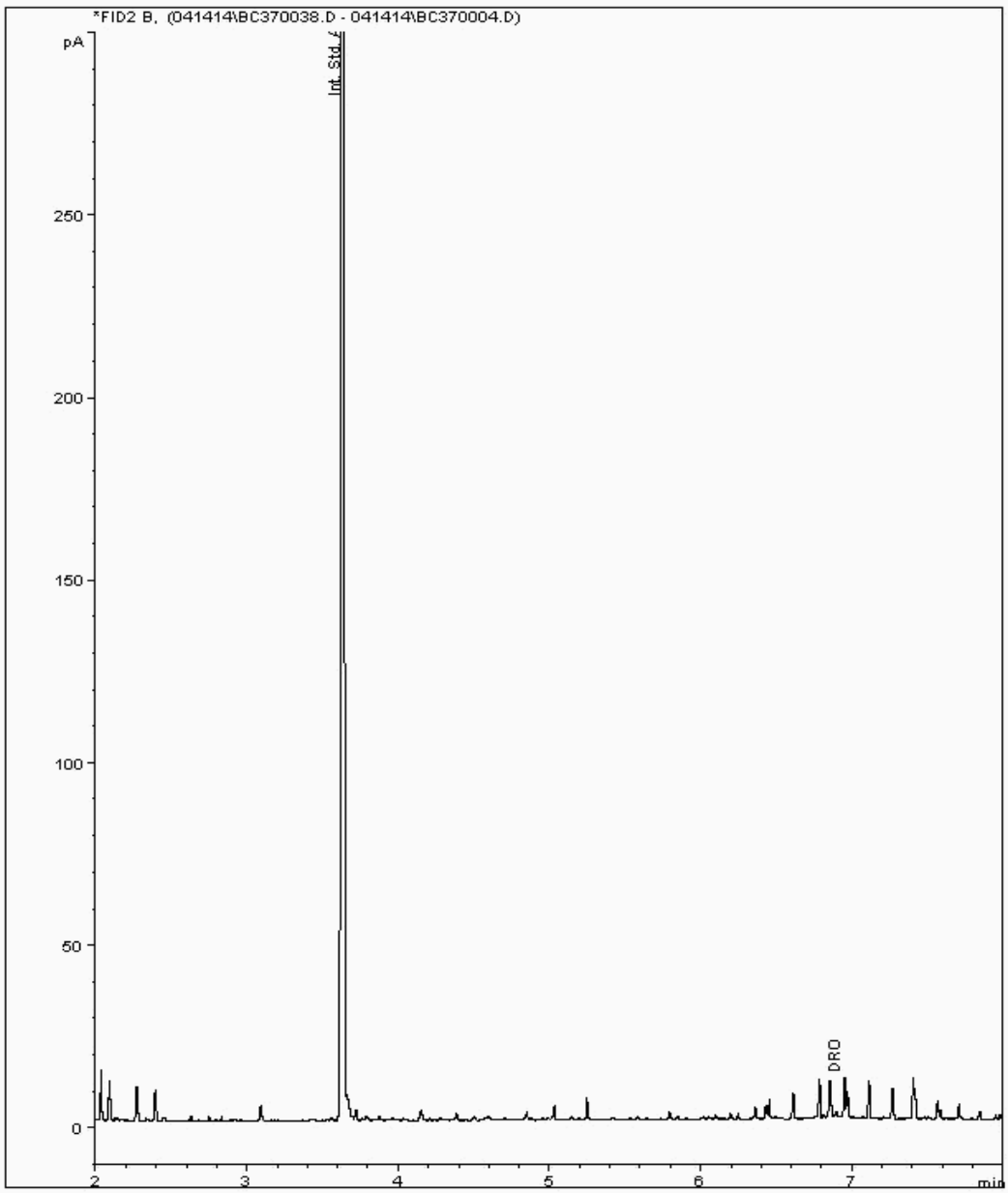
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9133159
Sample ID : NACW228

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8675216-9133159
Date Acquired : 15/04/2014 05:44:54 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

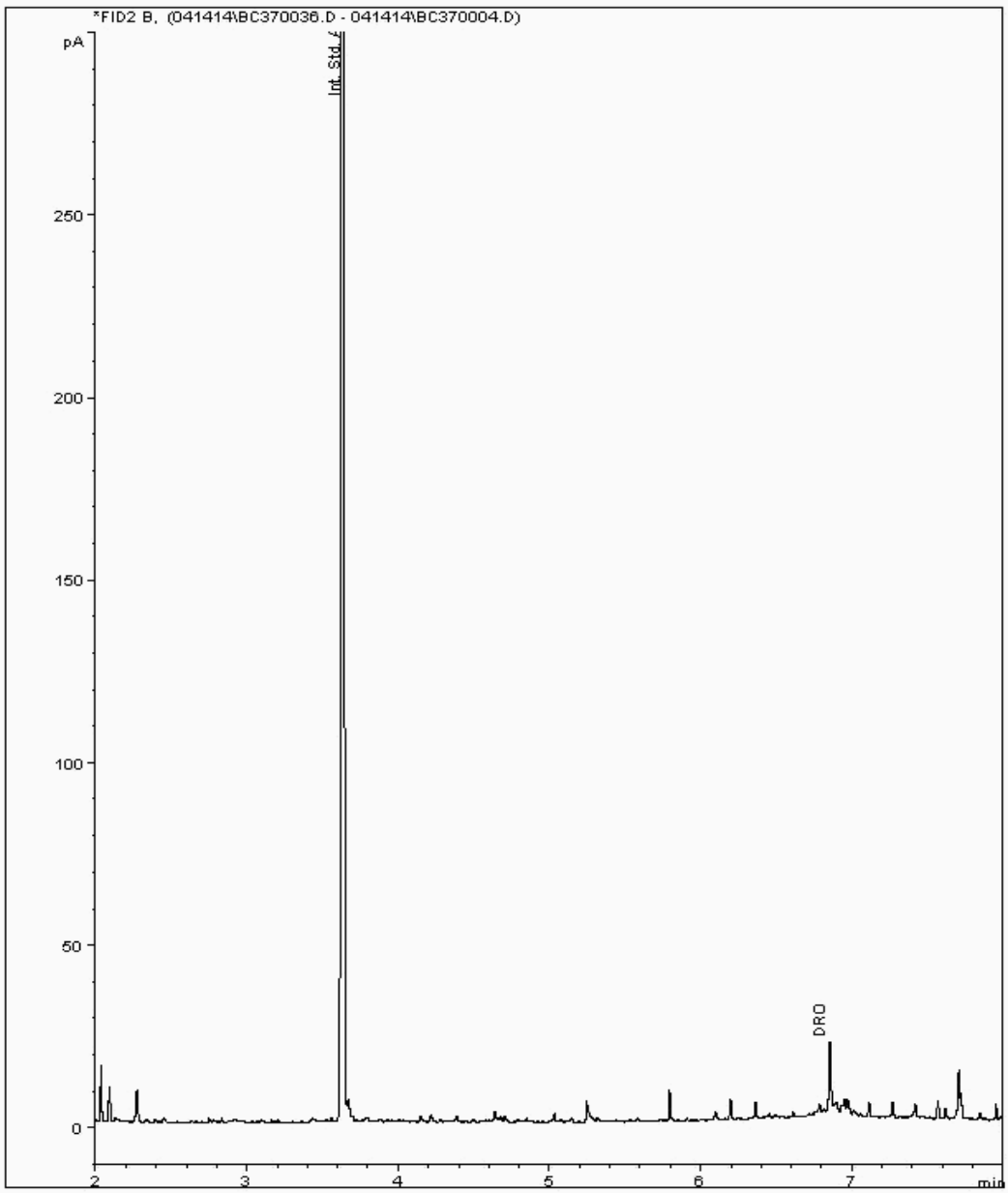
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9133204
Sample ID : NACW219

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8675201-9133204
Date Acquired : 15/04/2014 05:00:21 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

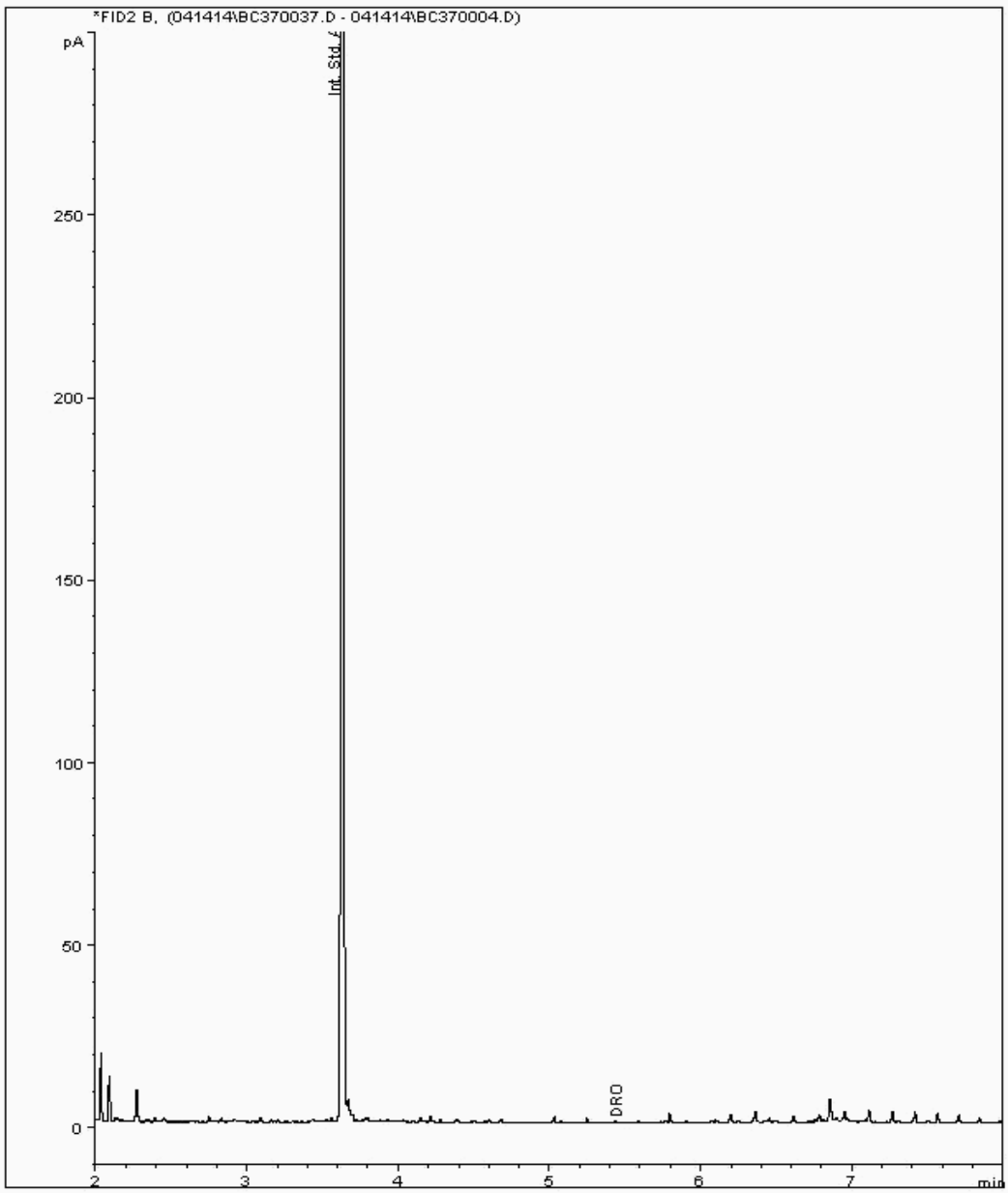
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9133240
Sample ID : NACW212

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 8675185-9133240
Date Acquired : 15/04/2014 05:22:28 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

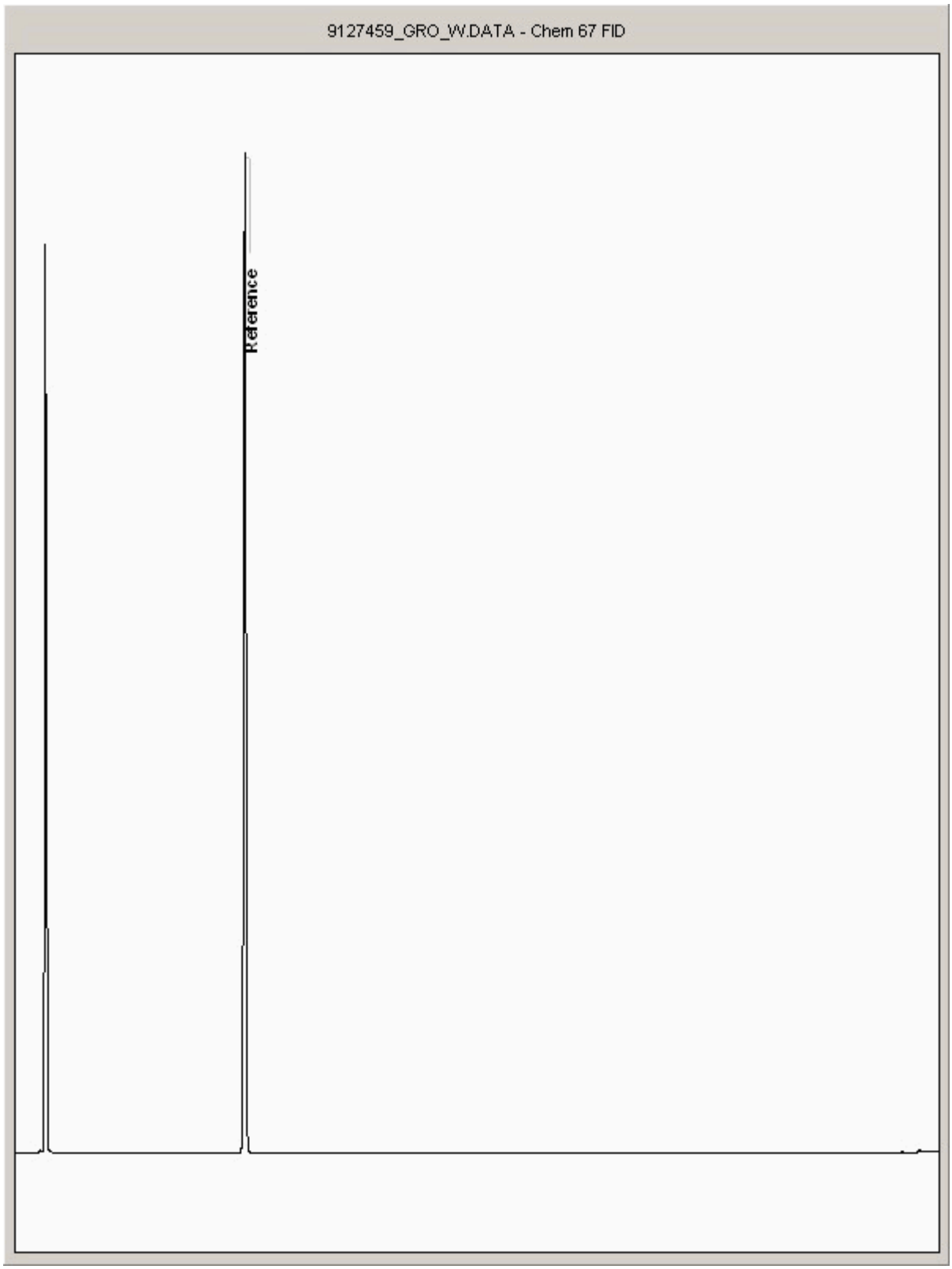
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127459
Sample ID : NACW229

Depth :



CERTIFICATE OF ANALYSIS

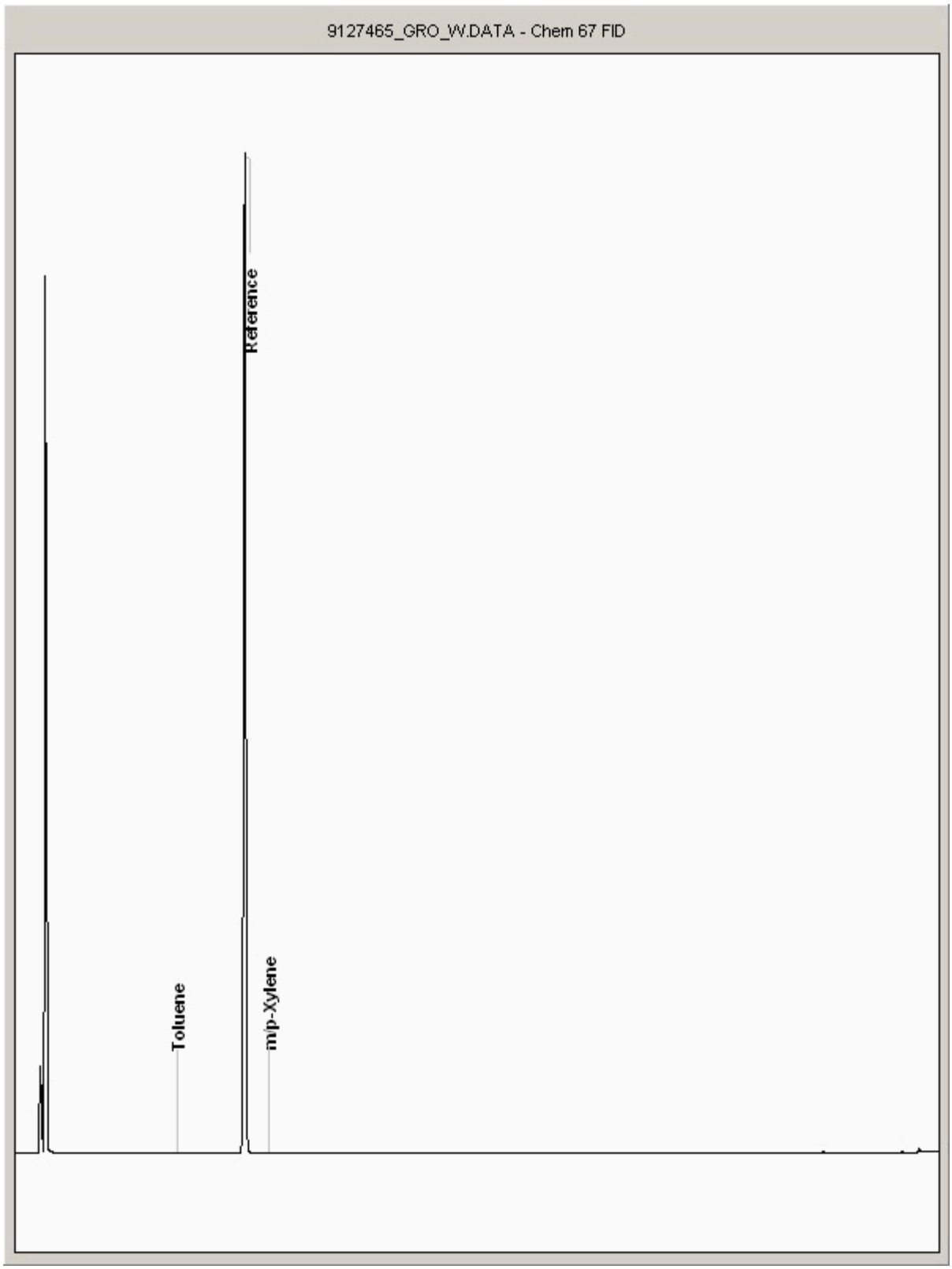
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127465
Sample ID : BH3/5

Depth :



CERTIFICATE OF ANALYSIS

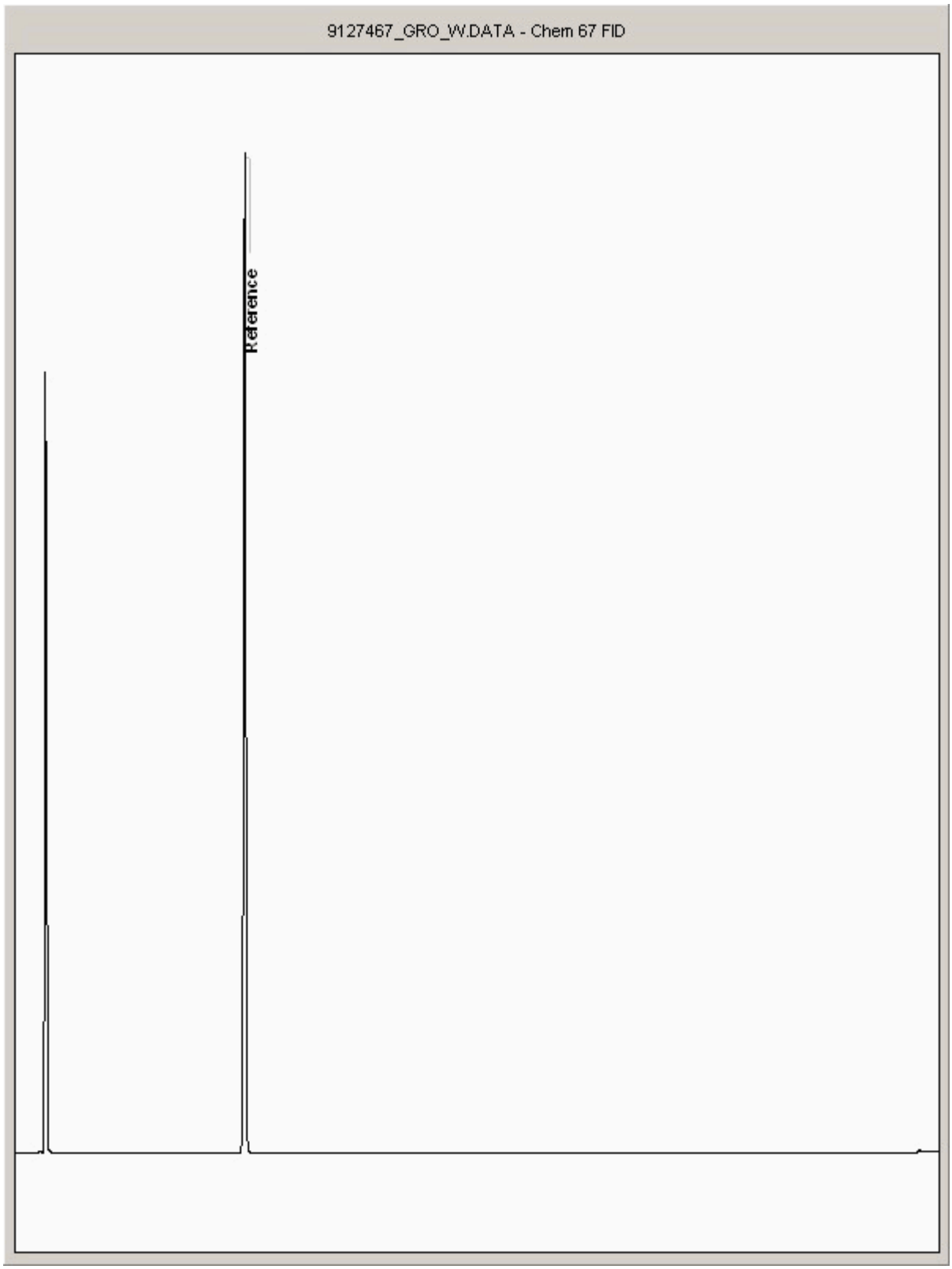
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127467
Sample ID : NACW203

Depth :



CERTIFICATE OF ANALYSIS

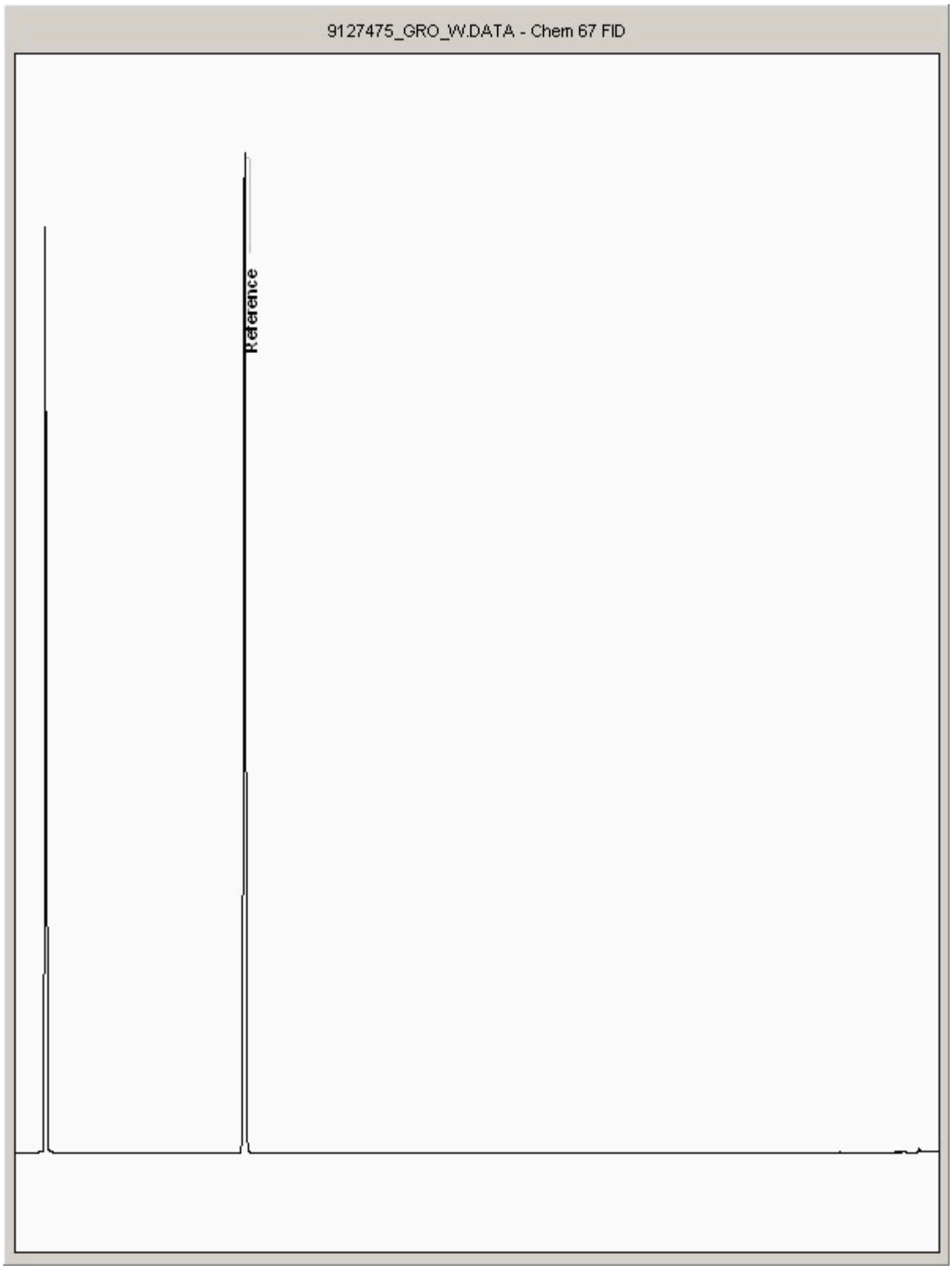
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127475
Sample ID : BH3/4

Depth :



CERTIFICATE OF ANALYSIS

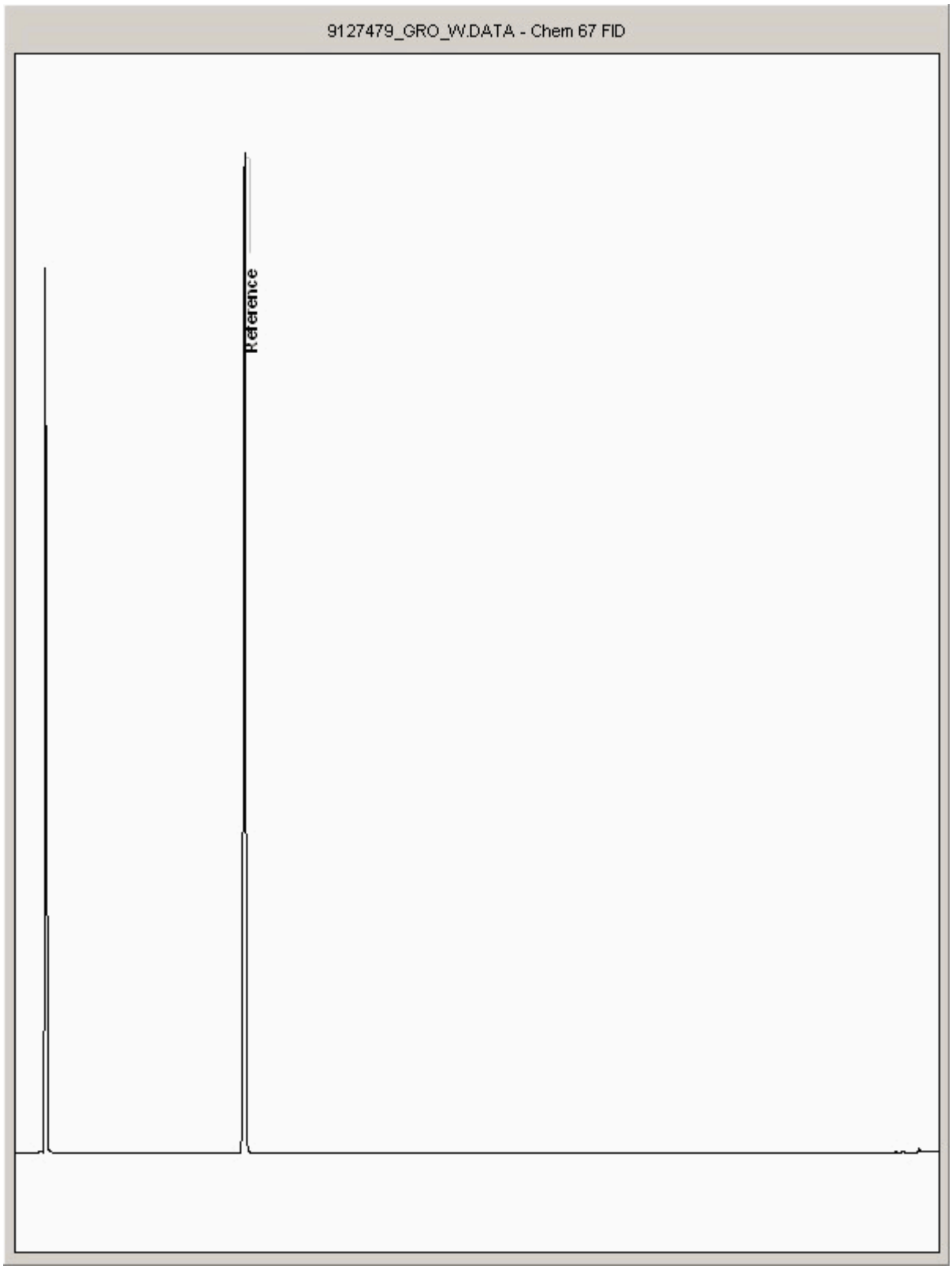
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127479
Sample ID : UD5

Depth :



CERTIFICATE OF ANALYSIS

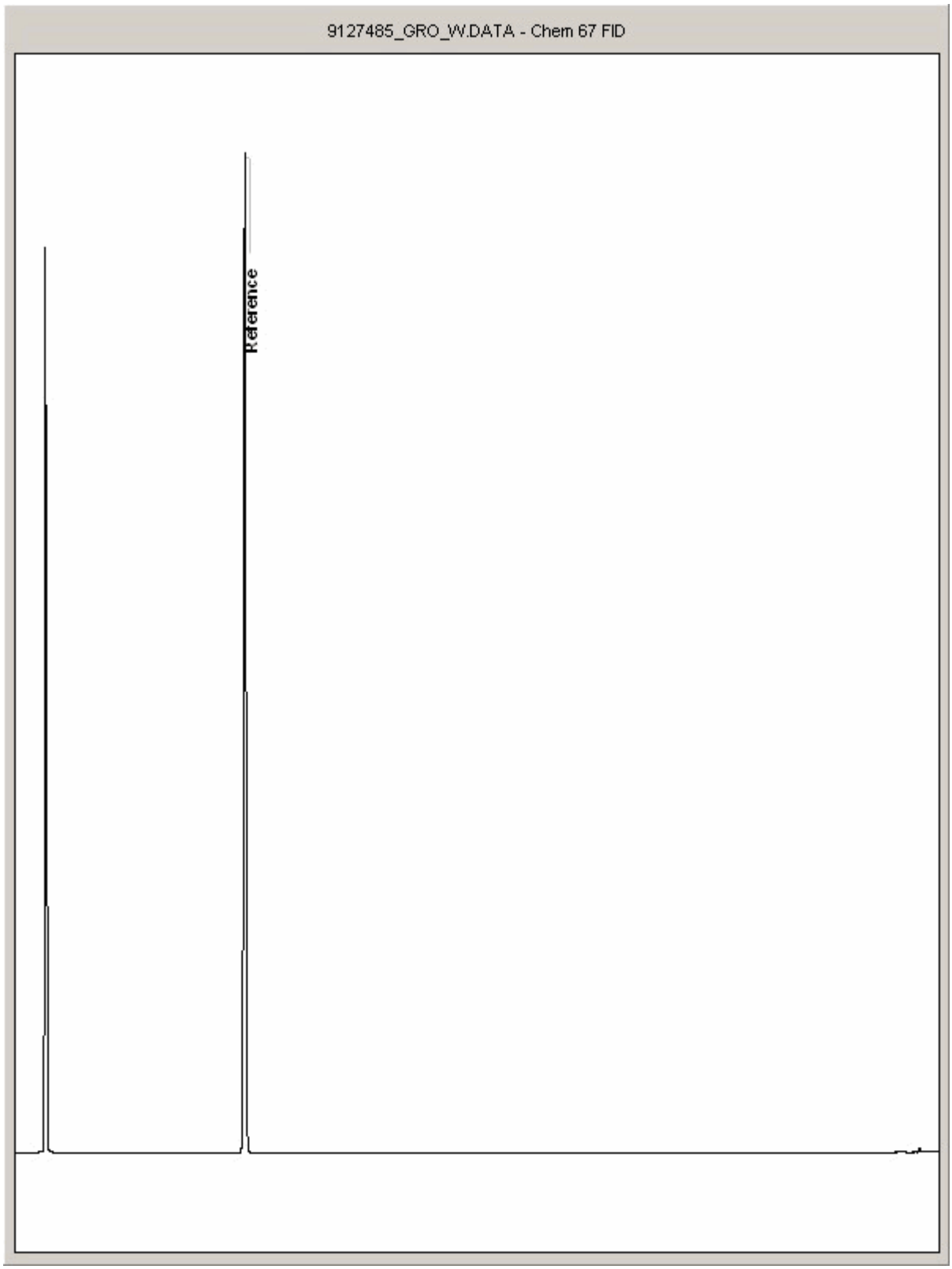
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127485
Sample ID : NACW228

Depth :



CERTIFICATE OF ANALYSIS

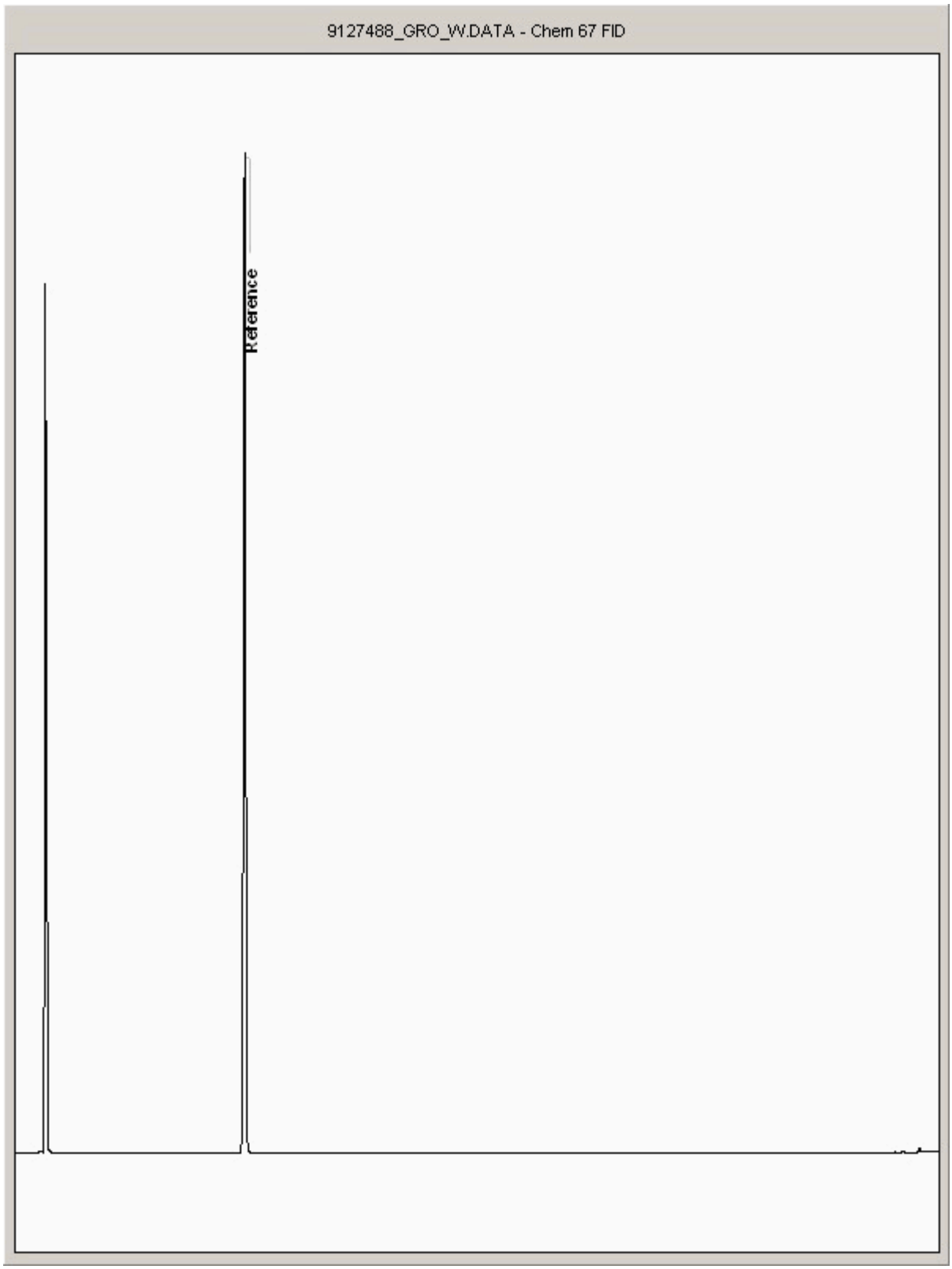
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127488
Sample ID : UD1

Depth :



CERTIFICATE OF ANALYSIS

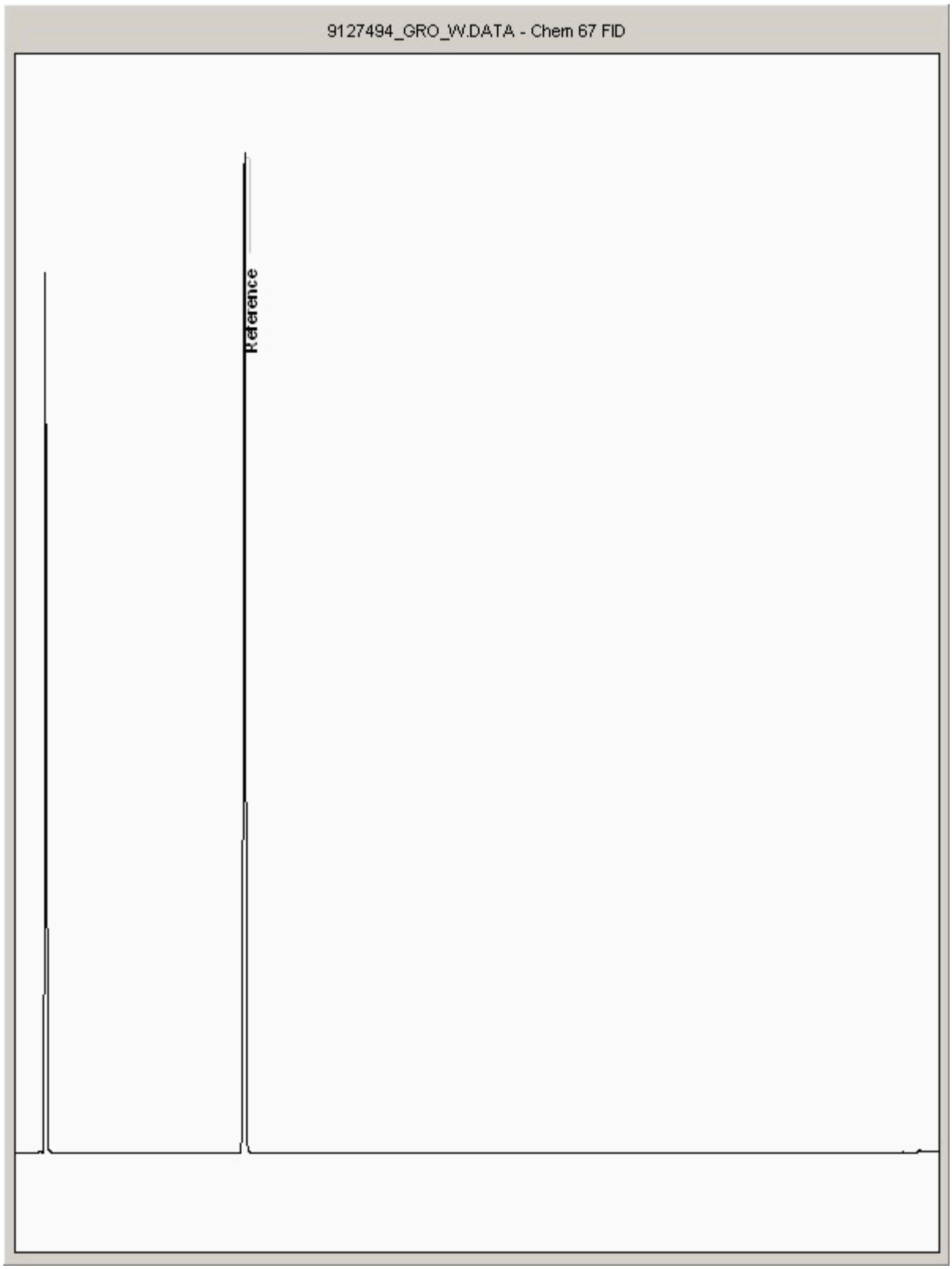
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127494
Sample ID : BH208

Depth :



CERTIFICATE OF ANALYSIS

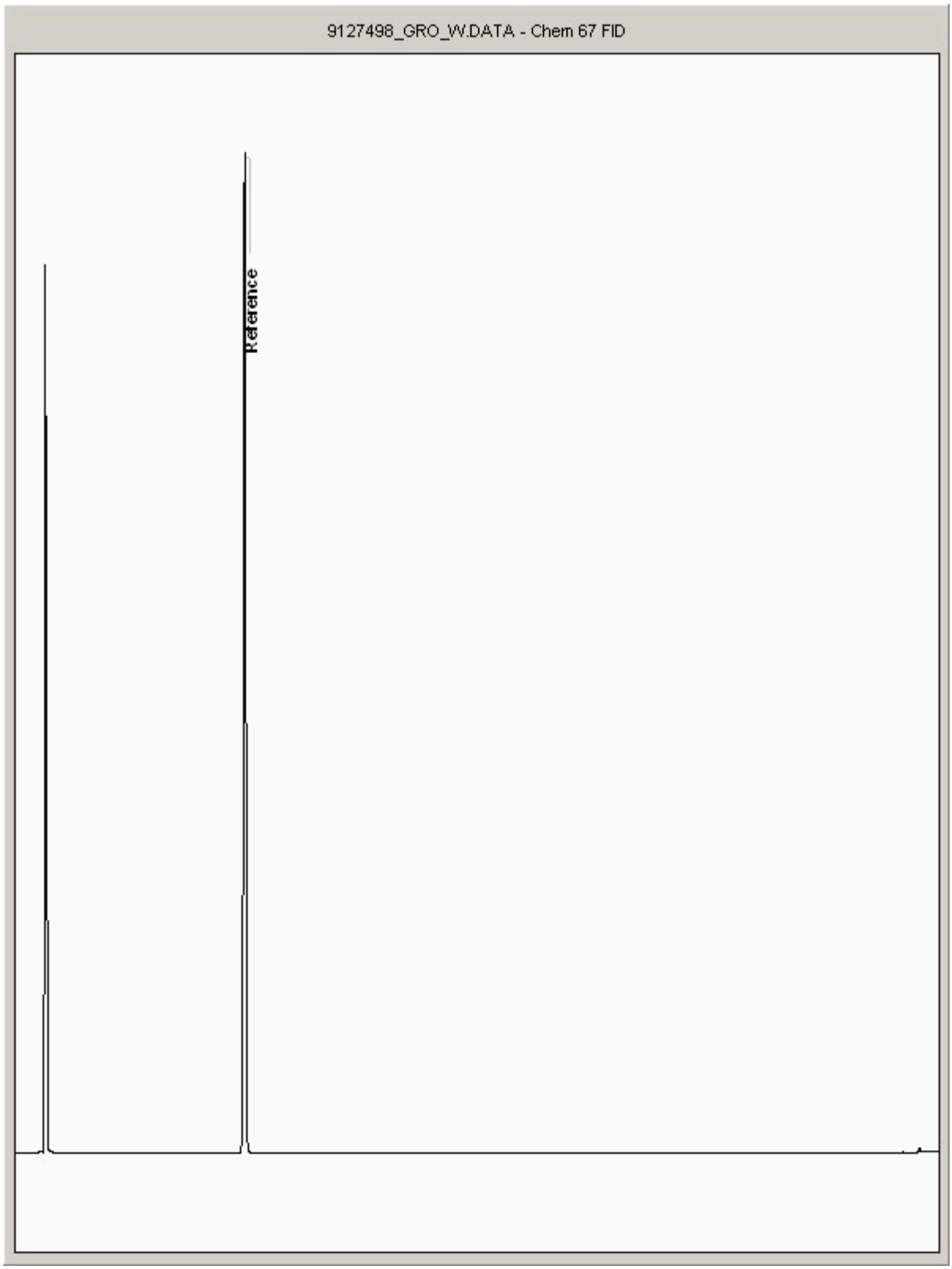
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127498
Sample ID : NACW212

Depth :



CERTIFICATE OF ANALYSIS

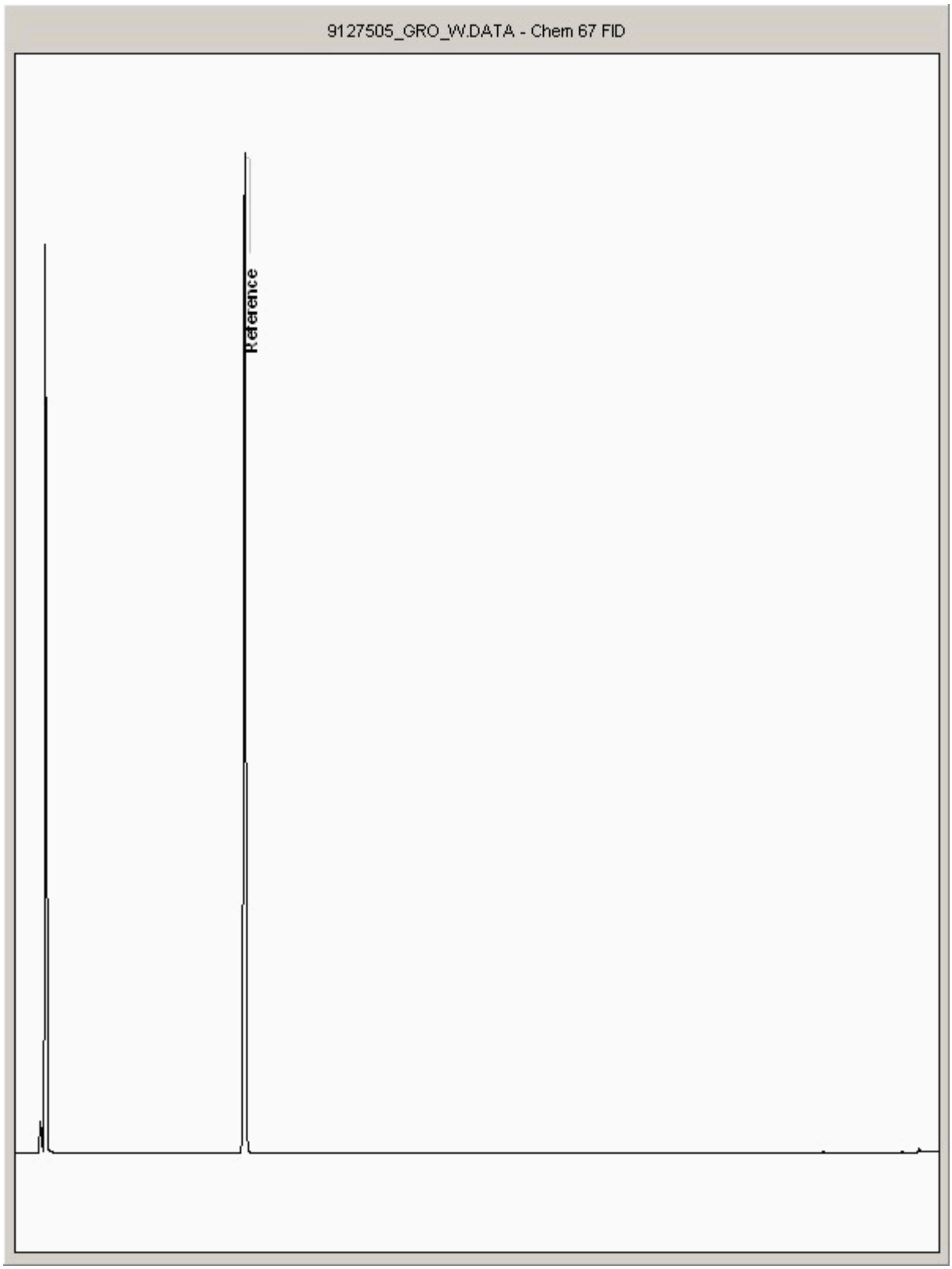
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127505
Sample ID : NACW219

Depth :



CERTIFICATE OF ANALYSIS

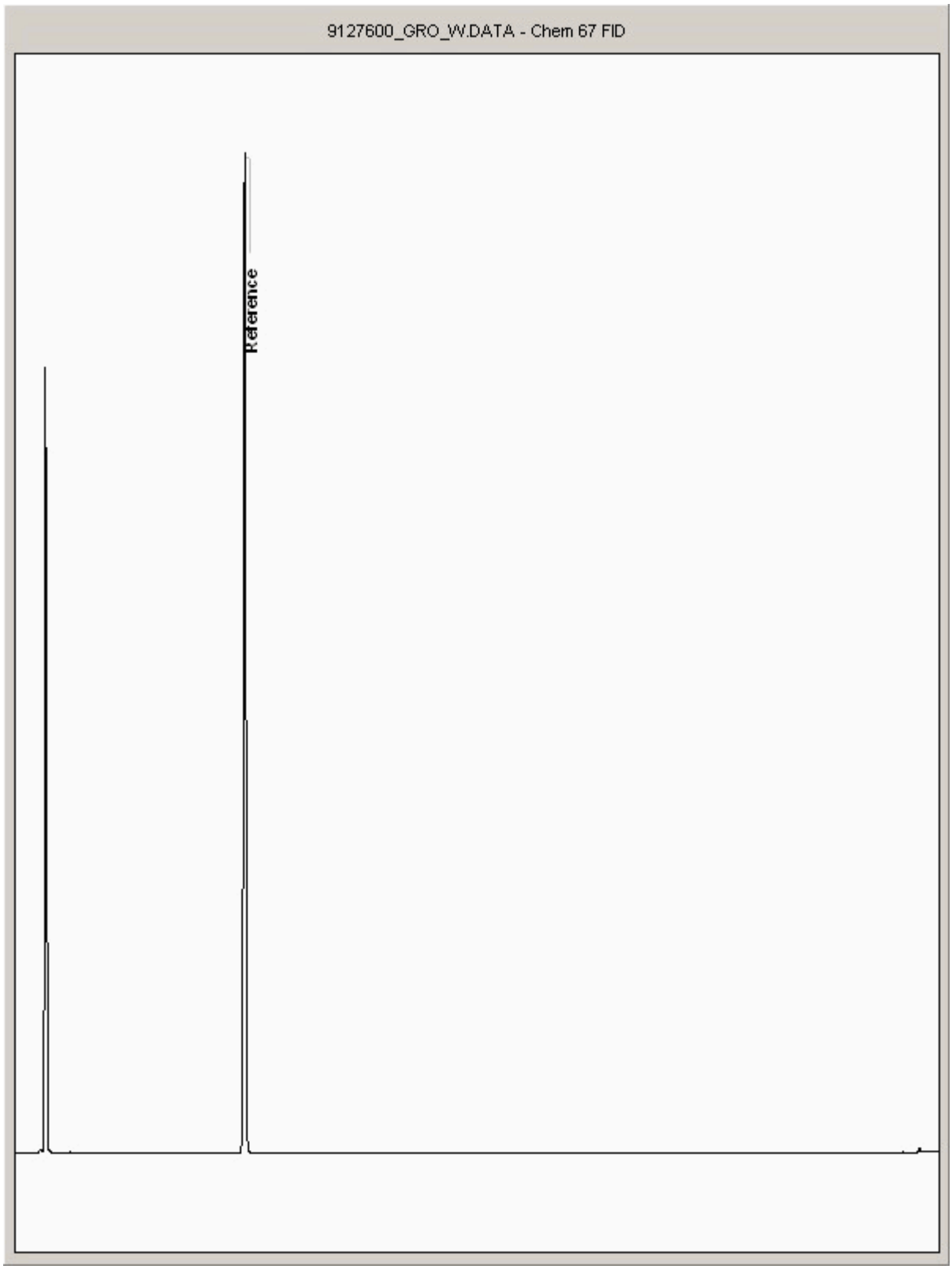
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127600
Sample ID : SW205

Depth :



CERTIFICATE OF ANALYSIS

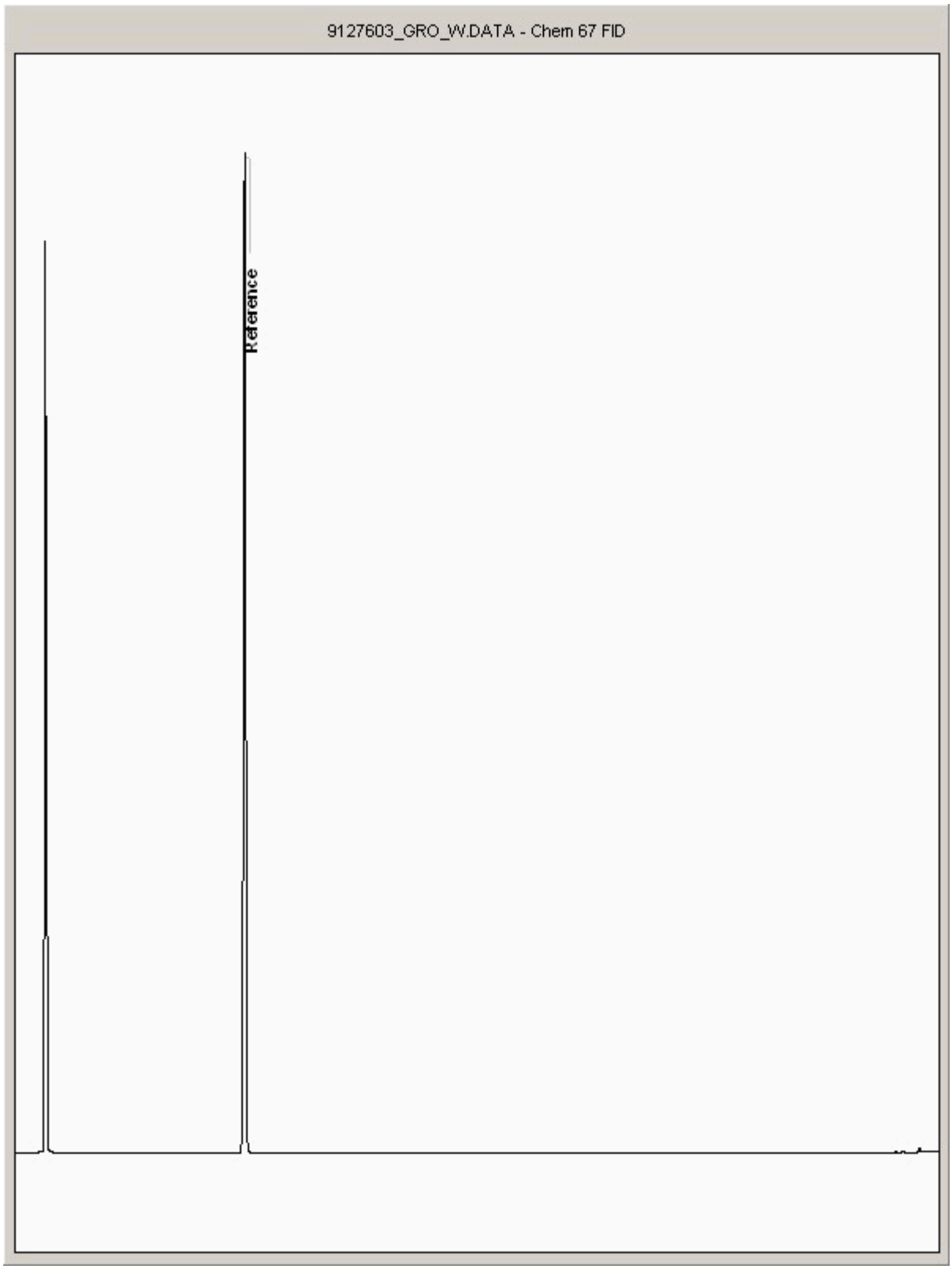
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127603
Sample ID : NACW205

Depth :



CERTIFICATE OF ANALYSIS

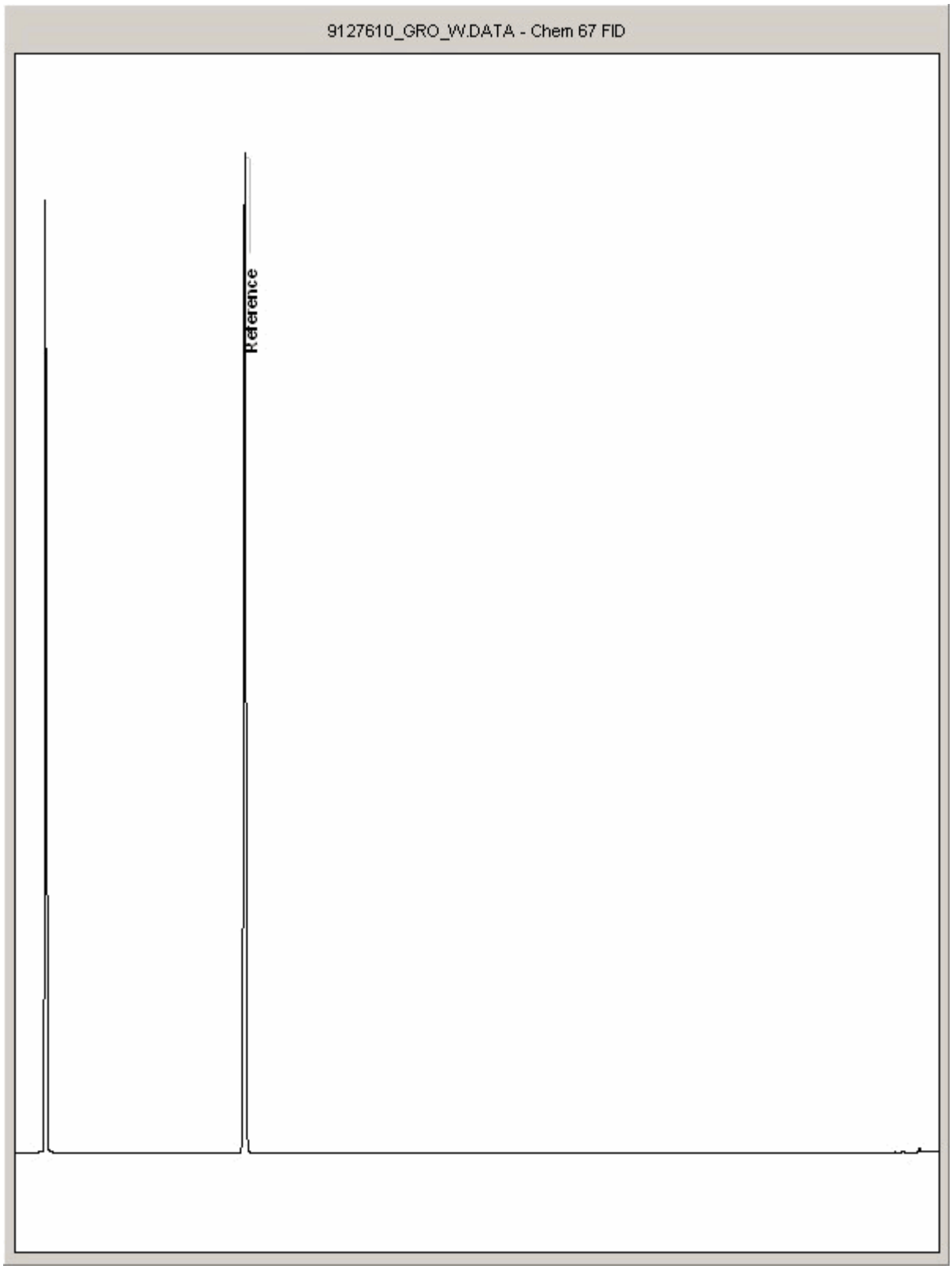
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127610
Sample ID : SW207

Depth :



CERTIFICATE OF ANALYSIS

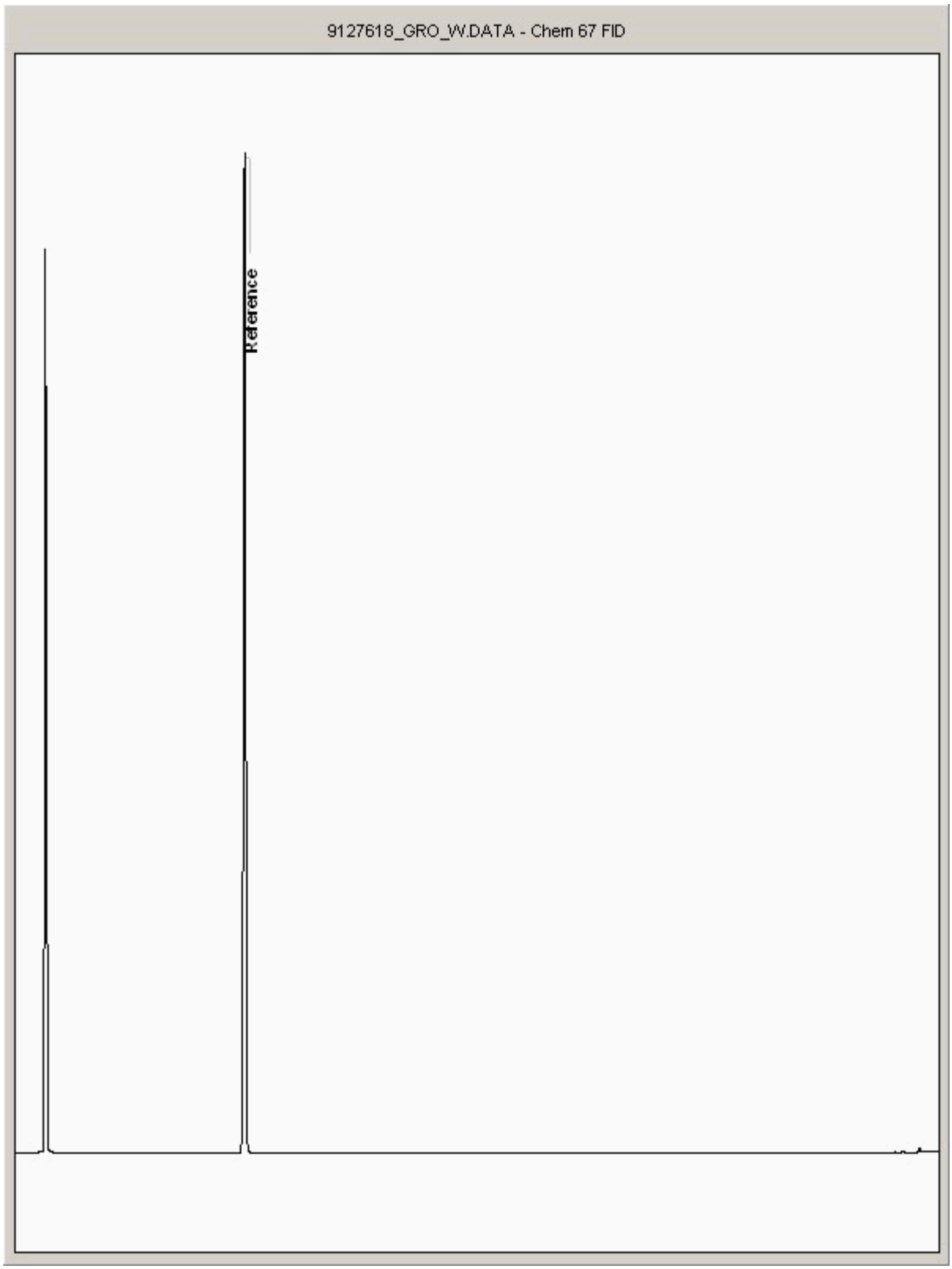
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127618
Sample ID : SW202

Depth :



CERTIFICATE OF ANALYSIS

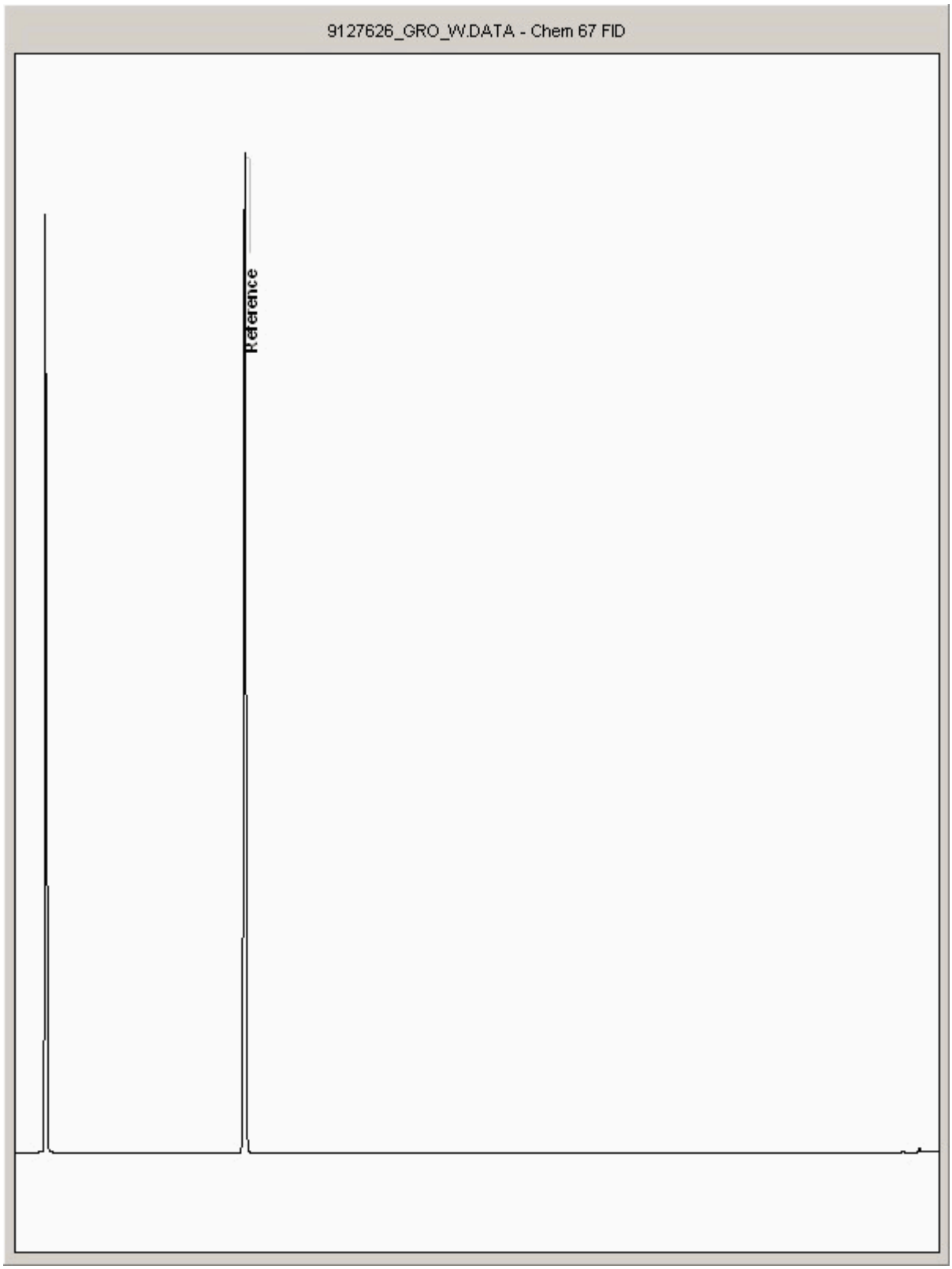
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127626
Sample ID : SW204

Depth :



CERTIFICATE OF ANALYSIS

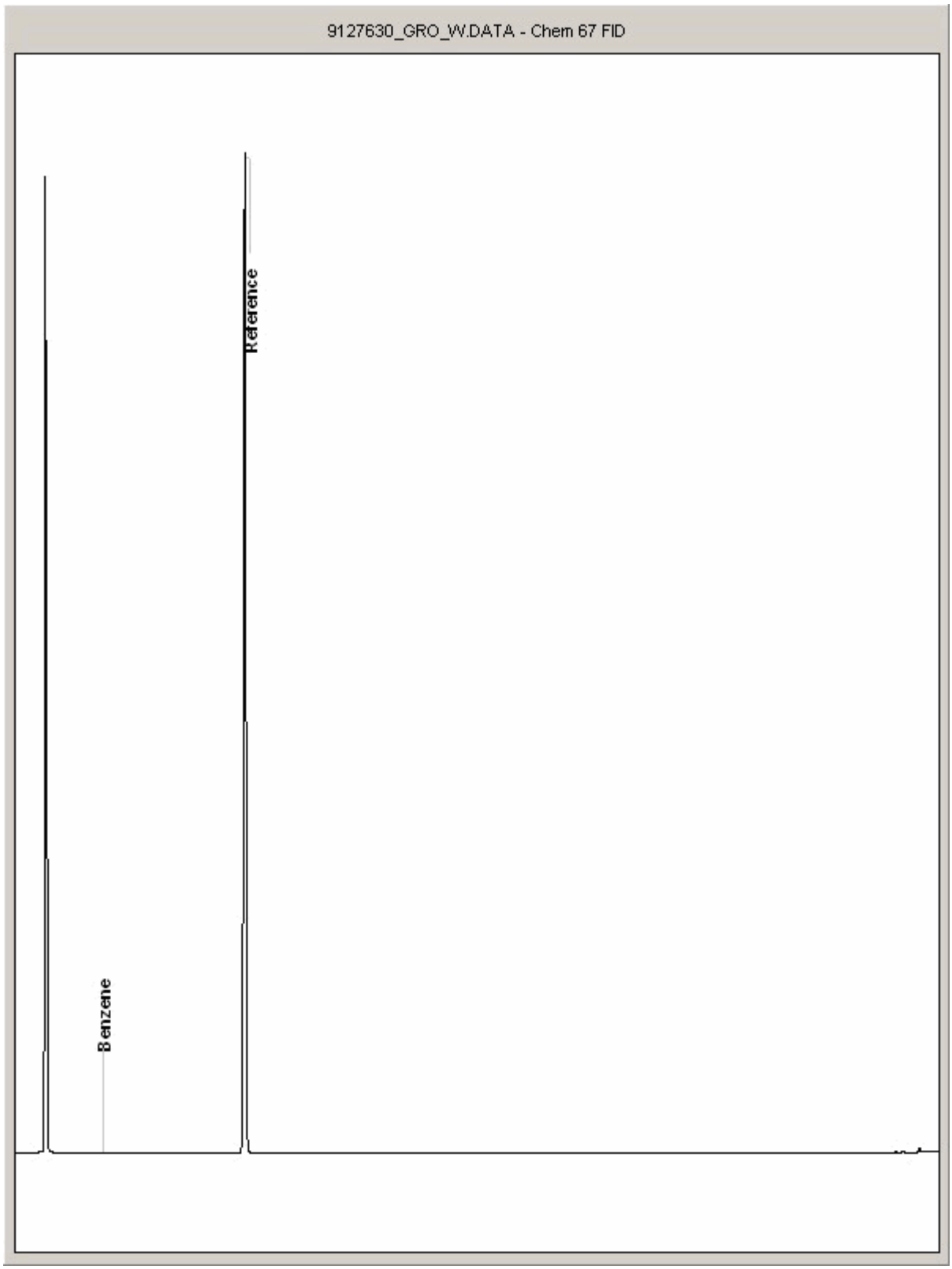
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127630
Sample ID : SW201

Depth :



CERTIFICATE OF ANALYSIS

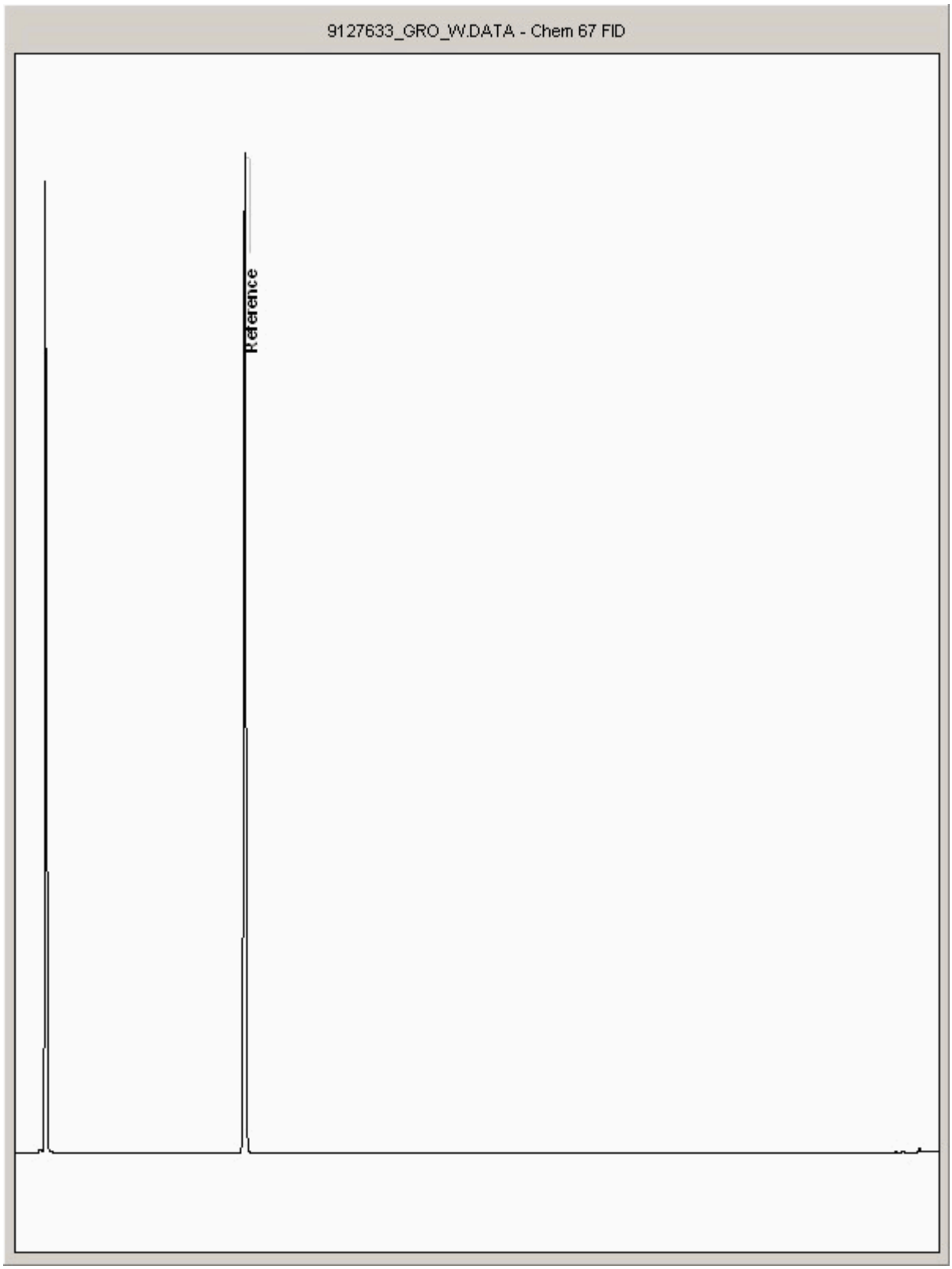
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127633
Sample ID : UD4

Depth :



CERTIFICATE OF ANALYSIS

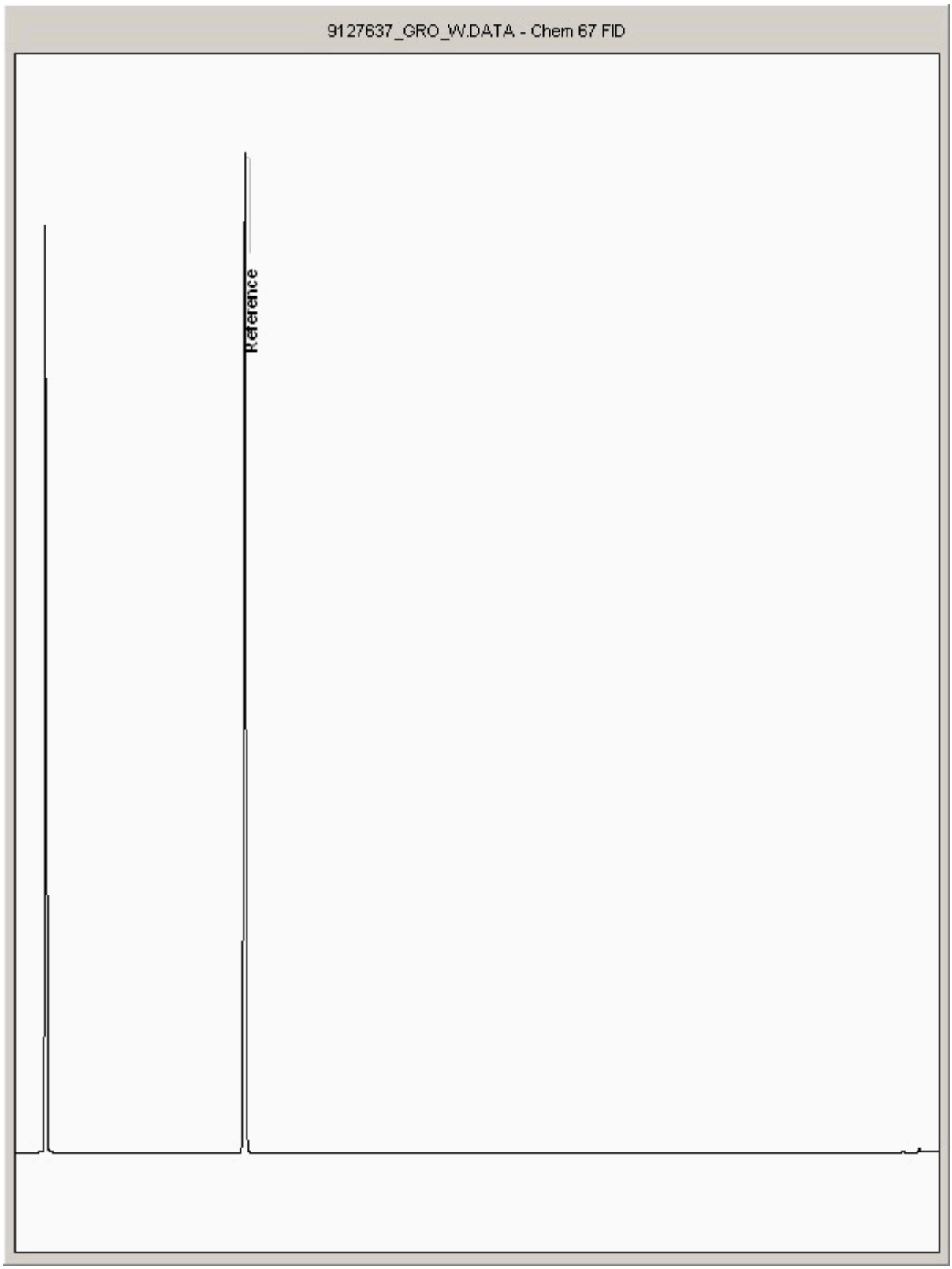
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127637
Sample ID : SW206

Depth :



CERTIFICATE OF ANALYSIS

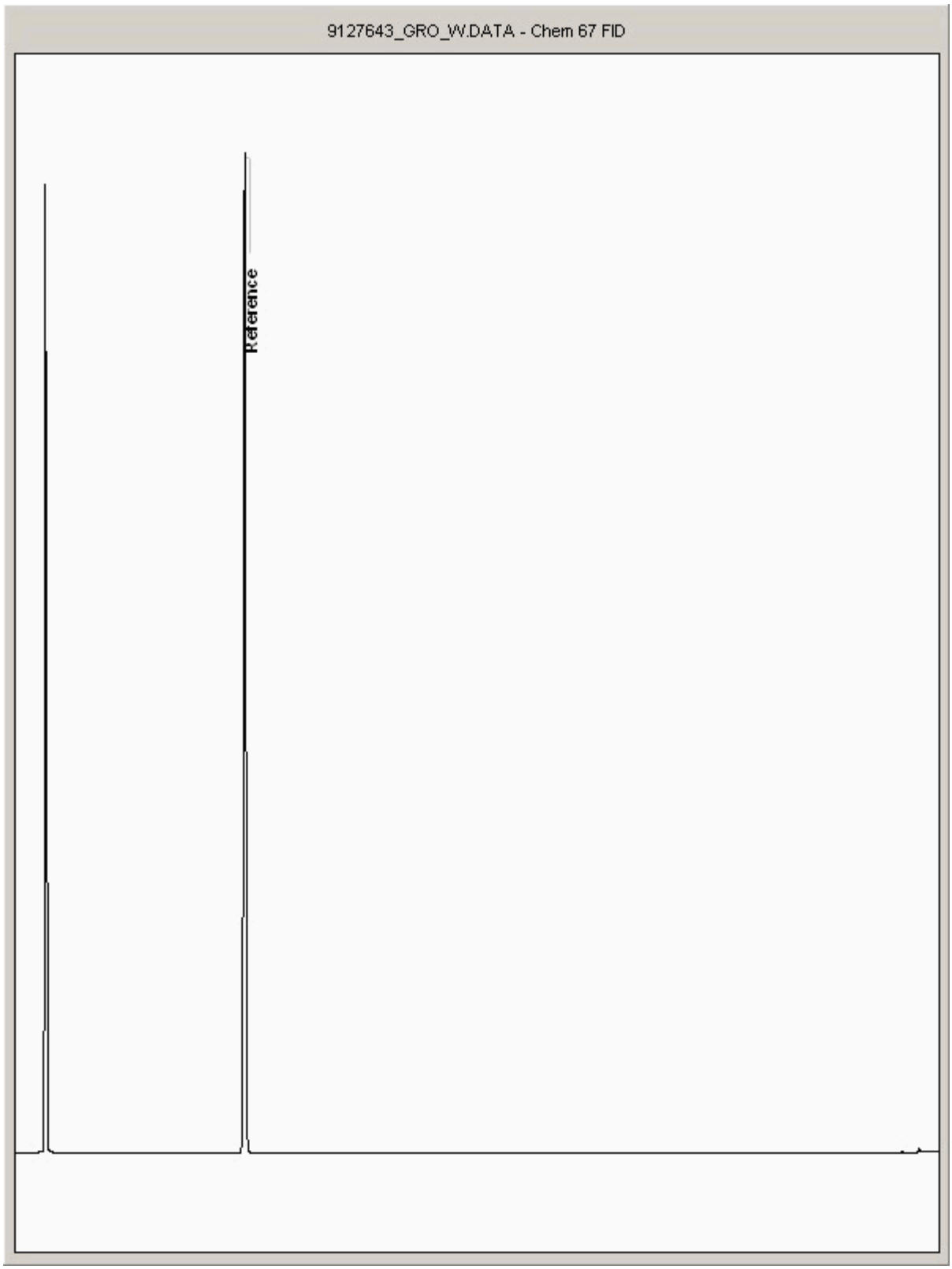
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127643
Sample ID : UD3

Depth :



CERTIFICATE OF ANALYSIS

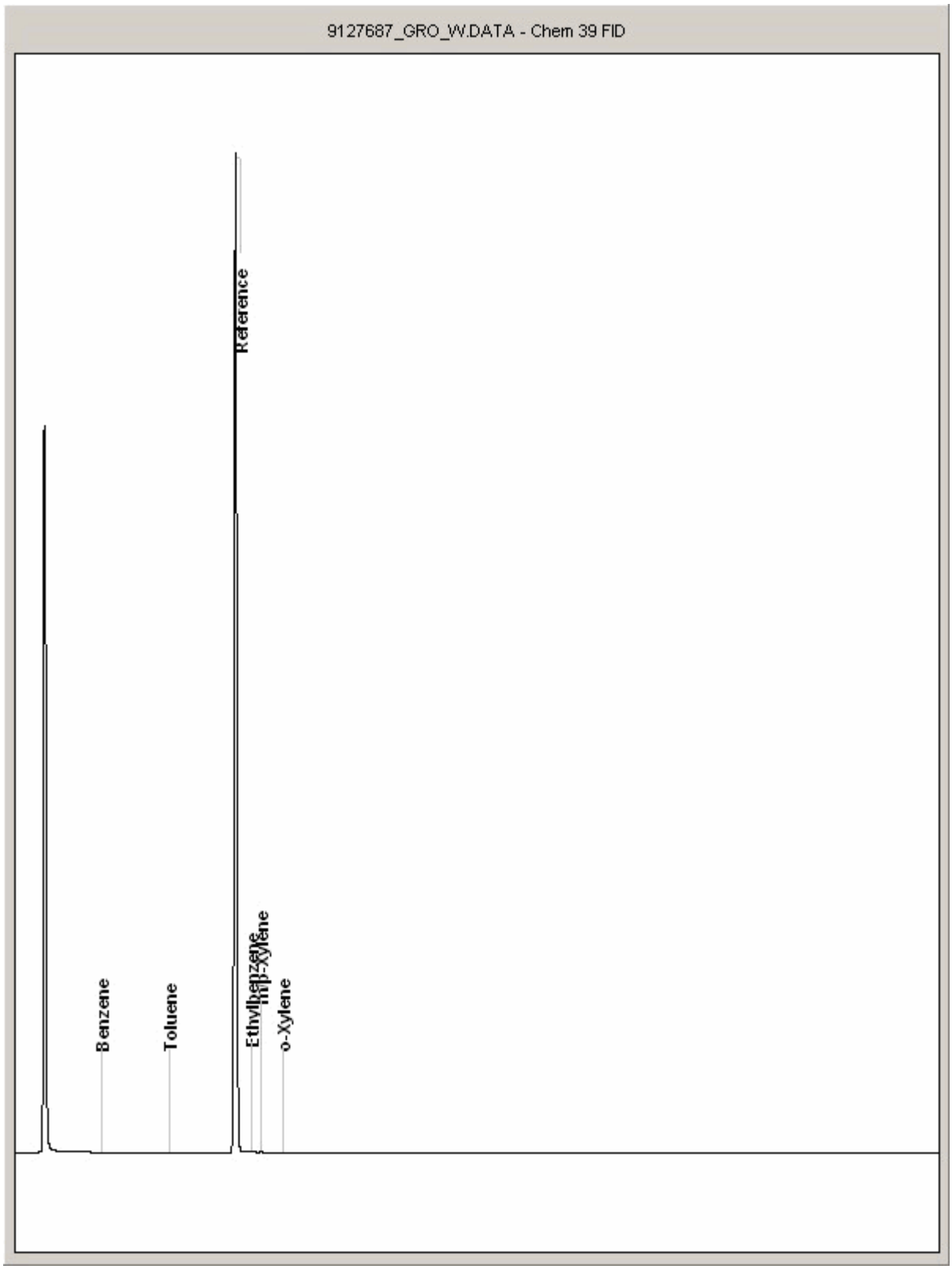
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127687
Sample ID : BH3/6

Depth :



CERTIFICATE OF ANALYSIS

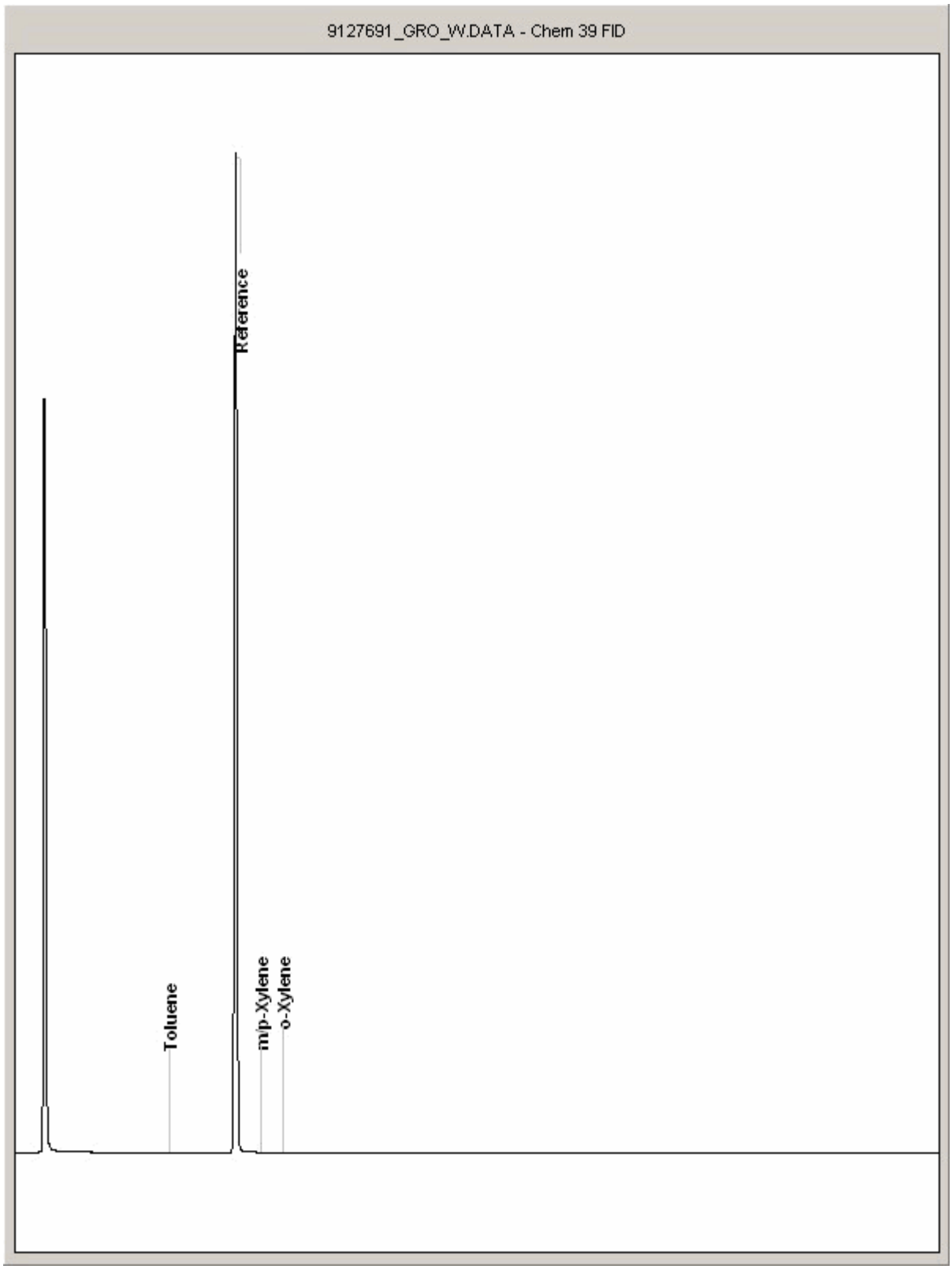
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127691
Sample ID : BH5/2

Depth :



CERTIFICATE OF ANALYSIS

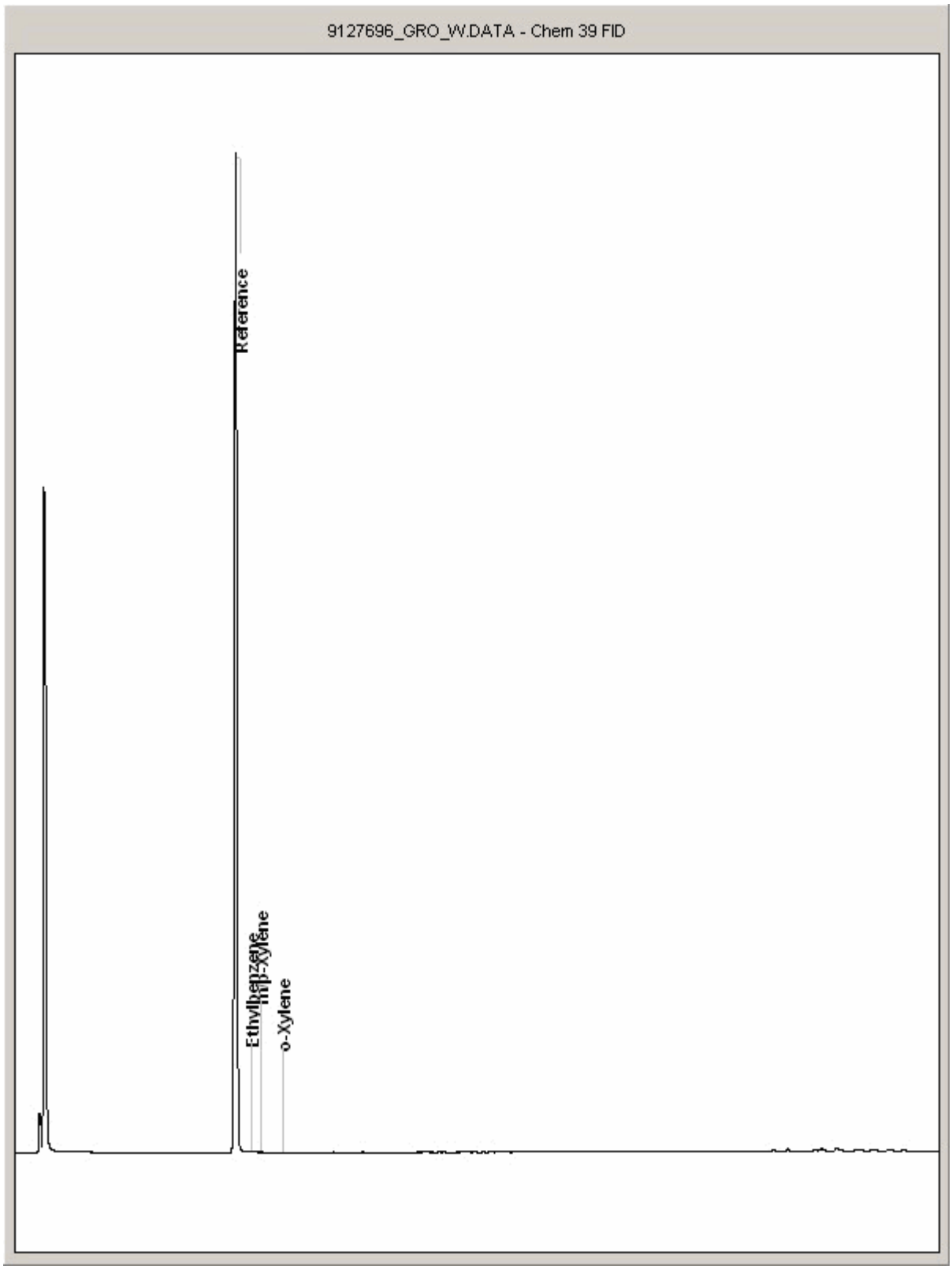
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127696
Sample ID : BH3/8

Depth :



CERTIFICATE OF ANALYSIS

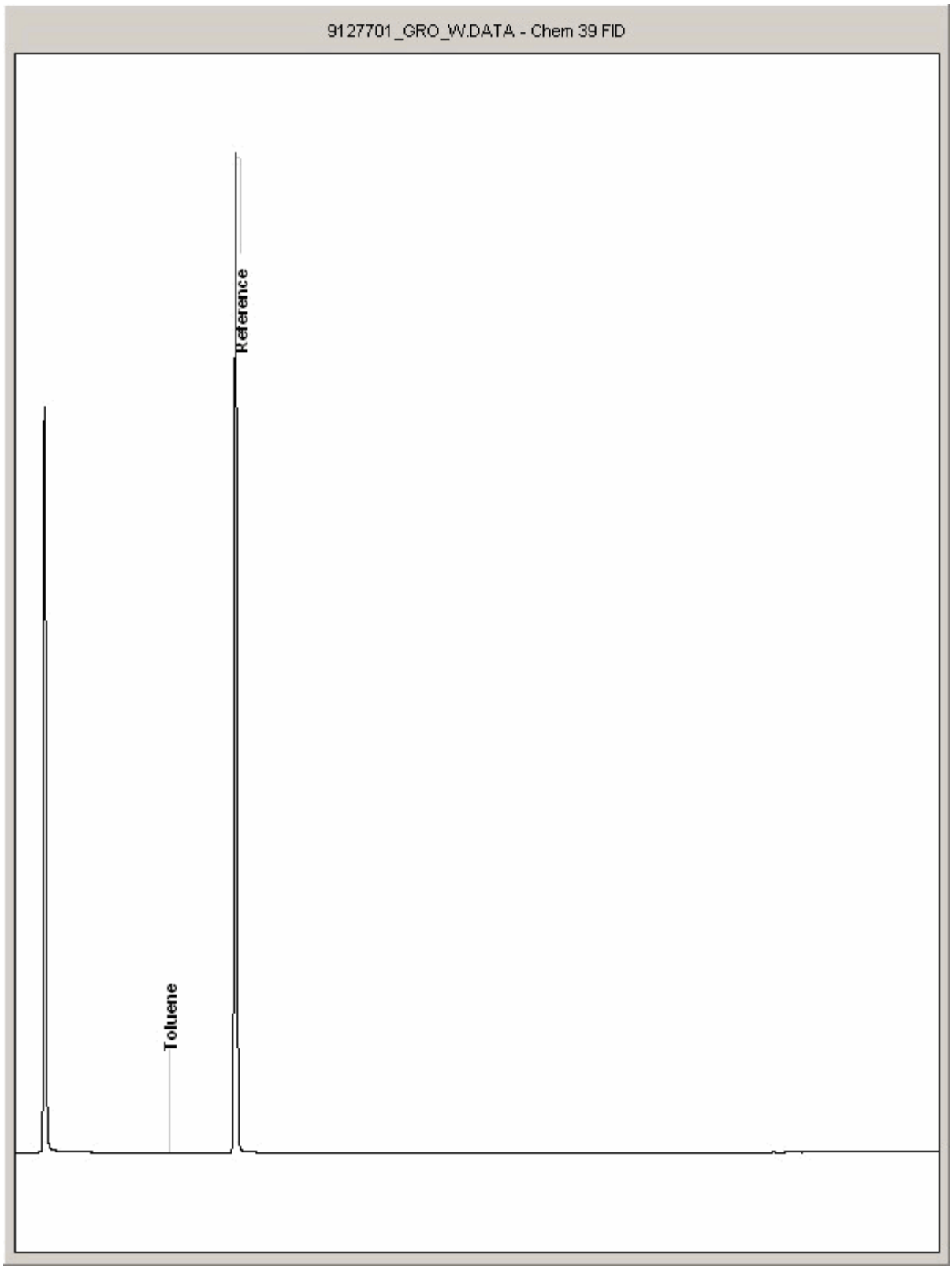
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127701
Sample ID : BH3/9

Depth :



CERTIFICATE OF ANALYSIS

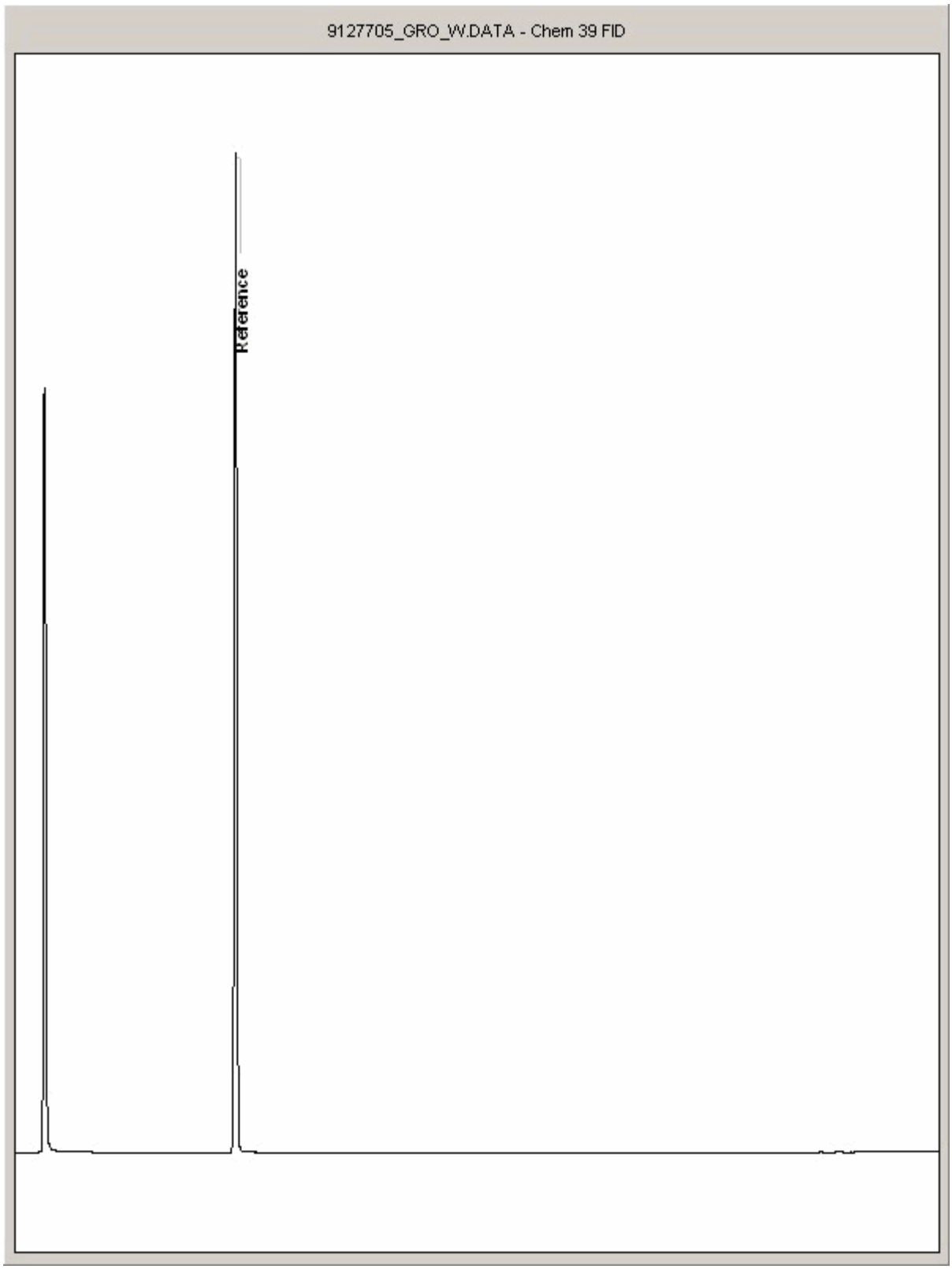
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127705
Sample ID : BH3/3

Depth :



CERTIFICATE OF ANALYSIS

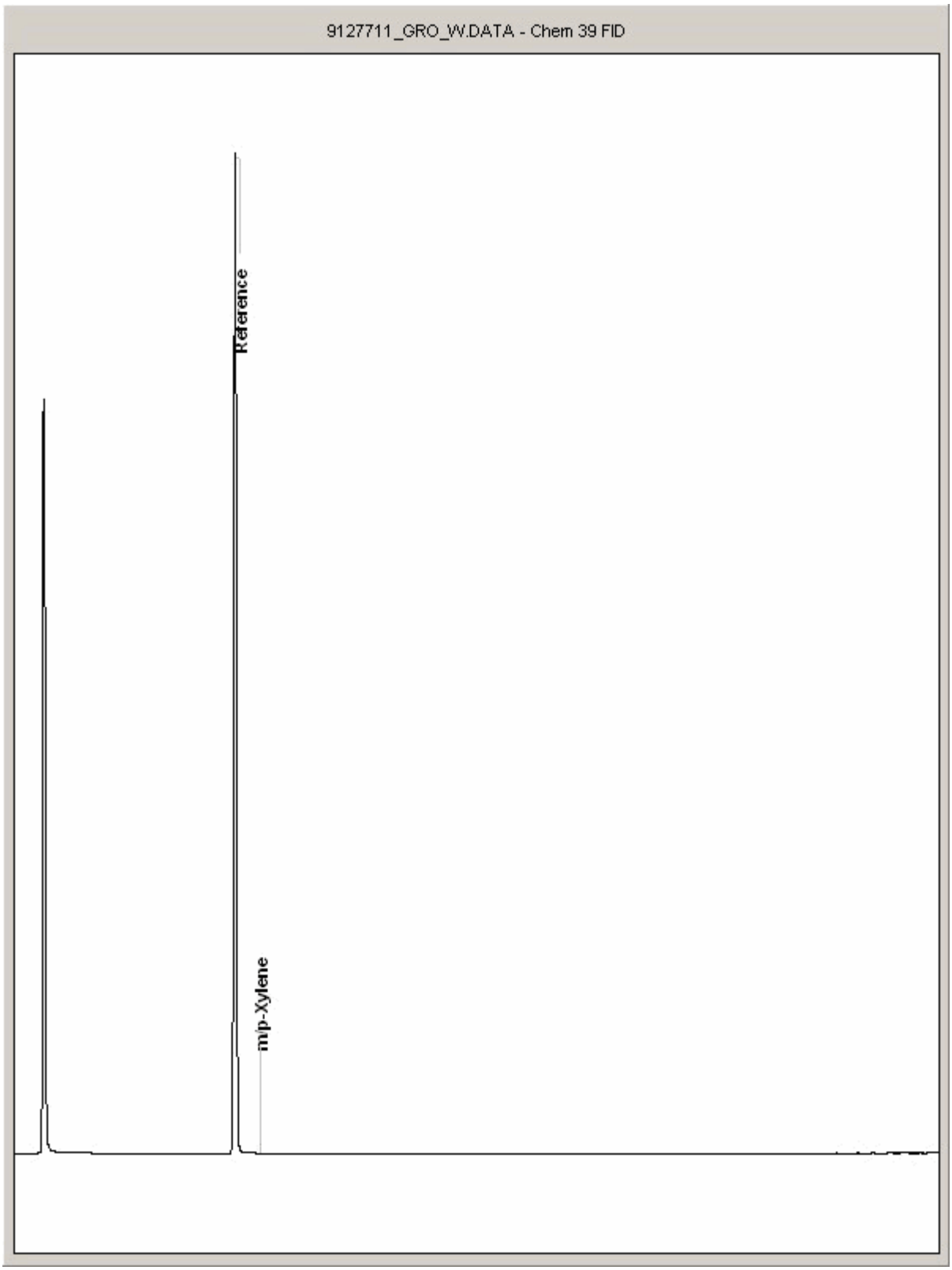
SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9127711
Sample ID : BH3/2

Depth :



CERTIFICATE OF ANALYSIS

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA Leach tests, flash point, ammonium as NH4 by the BRE method, VOC TICS, SVOC TICS, TOF-MS SCAN/SEARCH and TOF-MS TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for both soil jars, tubs and volatile jars. All waters and vials will be discarded 10 days after the analysis is completed (e-mailed). All material removed during an asbestos containing material screen and analysed for the presence of asbestos will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be screened in house for the presence of large asbestos containing material fragments/pieces. If no asbestos containing material is found this will be reported as 'no asbestos containing material detected'. If asbestos containing material is detected it will be removed and analysed by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If asbestos containing material is present no further analysis will be undertaken. At no point is the fibre content of the soil sample determined.

7. If no separate volatile sample is supplied by the client, the integrity of the data may be compromised if the laboratory is required to create a sub-sample from the bulk sample -similarly, if a headspace or sediment is present in the volatile sample. This will be flagged up as an invalid VOC on the test schedule or recorded on the log sheet.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. A table containing the date of analysis for each parameter is not routinely included with the report, but is available upon request.

12. Results relate only to the items tested

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 14).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. Our MCERTS accreditation for PAHs by GCMS applies to all product types apart from Kerosene, where naphthalene only is not
accredited.

19. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

20. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

21. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

22. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

23. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials -whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute themajor part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

24. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C4 -C10 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

SOLID MATRICES EXTRACTION SUMMARY

ANALYSIS	D/C OR WET	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
SOLVENT EXTRACTABLE MATTER	D&C	DCM	SOXTHERM	GRAVIMETRIC
CYCLOHEXANE EXT. MATTER	D&C	CYCLOHEXANE	SOXTHERM	GRAVIMETRIC
THIN LAYER CHROMATOGRAPHY	D&C	DCM	SOXTHERM	IATROSCAN
ELEMENTAL SULPHUR	D&C	DCM	SOXTHERM	HPLC
PHENOLS BY GCMS	WET	DCM	SOXTHERM	GCMS
HERBICIDES	D&C	HEXANE/ACETONE	SOXTHERM	GCMS
PESTICIDES	D&C	HEXANE/ACETONE	SOXTHERM	GCMS
EPH (DRO)	D&C	HEXANE/ACETONE	END OVER END	GC-FID
EPH (MIN OIL)	D&C	HEXANE/ACETONE	END OVER END	GC-FID
EPH (CLEANED UP)	D&C	HEXANE/ACETONE	END OVER END	GC-FID
EPH CWG BY GC	D&C	HEXANE/ACETONE	END OVER END	GC-FID
PCB TOT / PCB CON	D&C	HEXANE/ACETONE	END OVER END	GCMS
POLYAROMATIC HYDROCARBONS (MS)	WET	HEXANE/ACETONE	MICROWAVE TM218.	GCMS
C8-C40 (C9C40) EZ FLASH	WET	HEXANE/ACETONE	SHAKER	GC-EZ
POLYAROMATIC HYDROCARBONS RAPID GC	WET	HEXANE/ACETONE	SHAKER	GC-EZ
SEMI VOLATILE ORGANIC COMPOUNDS	WET	DCM/ACETONE	SONICATE	GCMS

LIQUID MATRICES EXTRACTION SUMMARY

ANALYSIS	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
PAH MS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GCMS
EPH	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
EPH CWG	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
MINERAL OIL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
PCB 7 CONGENERS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GCMS
PCB TOTAL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GCMS
SVOC	DCM	LIQUID/LIQUID SHAKE	GCMS
FREE SULPHUR	DCM	SOLID PHASE EXTRACTION	HPLC
PEST OCP/OPP	DCM	LIQUID/LIQUID SHAKE	GCMS
TRIAZINE HERBS	DCM	LIQUID/LIQUID SHAKE	GCMS
PHENOLS MS	DCM	SOLID PHASE EXTRACTION	GCMS
TPH by INFRARED (IR)	TCE	LIQUID/LIQUID SHAKE	HPLC
MINERAL OIL by IR	TCE	LIQUID/LIQUID SHAKE	HPLC
GLYCOLS	NONE	DIRECT INJECTION	GCMS

Identification of Asbestos in Bulk Materials

The results for asbestos identification for soil samples are obtained from possible Asbestos Containing Material, removed during the 'Screening of soils for Asbestos Containing Materials', which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -
Trace -Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in MDHS 100.

The identification of asbestos containing materials falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Last Updated : 2010/09/08

SDG:	140410-38	**Location:**	Phase 2-3	**Order Number:**	6680 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	267624
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix
General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before presevation was performed
§	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -
Trace -Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

ALcontrol Laboratories

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CWM Environmental Ltd
Nantyclaws Landfill Site
Llanddarg Road
Carmarthen
Carmarthenshire
SA32 8BG

Attention: Mike Lewis

CERTIFICATE OF ANALYSIS

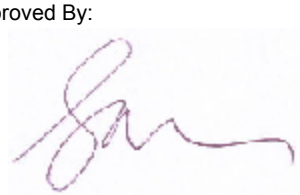
Date:	30 May 2014
Customer:	H_CWMENV_NAN
Sample Delivery Group (SDG):	140523-8
Your Reference:	
Location:	Phase 2-3
Report No:	271774

We received 23 samples on Thursday May 22, 2014 and 23 of these samples were scheduled for analysis which was completed on Friday May 30, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:



Sonia McWhan

Operations Manager

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Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No.

CERTIFICATE OF ANALYSIS

SDG:	140523-8	**Location:**	Phase 2-3	**Order Number:**	7010 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	271774
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
9329158	BH 3/4			20/05/2014
9329153	BH208			20/05/2014
9329154	BH5/02			20/05/2014
9329139	CELL SUMP 5			21/05/2014
9329141	CELL SUMP 6			21/05/2014
9329142	CELL SUMP 7			21/05/2014
9329137	CELL SUMP 1/2			21/05/2014
9329138	CELL SUMP 3/4			21/05/2014
9329136	LEACHATE LAGOON			21/05/2014
9329149	NACW203			20/05/2014
9329151	NACW205			20/05/2014
9329155	NACW212			20/05/2014
9329156	NACW228			20/05/2014
9329143	SW201			21/05/2014
9329144	SW202			21/05/2014
9329145	SW204			21/05/2014
9329146	SW205			21/05/2014
9329147	SW206			21/05/2014
9329148	SW207			21/05/2014
9329159	UD1			20/05/2014
9329160	UD3			20/05/2014
9329161	UD4			20/05/2014
9329163	UD5			20/05/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	140523-8	**Location:**	Phase 2-3	**Order Number:**	7010 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	271774
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

		Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 23				
Anions by Kone (w)	All	NDPs: 0 Tests: 23				
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 23				
pH Value	All	NDPs: 0 Tests: 6				
Suspended Solids	All	NDPs: 0 Tests: 6				

Lab Sample No(s)	Customer Sample Reference	Container	Ammoniacal Nitrogen	Anions by Kone (w)	Conductivity (at 20 deg.C)	pH Value	Suspended Solids
9329158	BH 3/4	500ml Plastic (ALE2)		X	X		
		H2SO4 (ALE244)	X				
9329153	BH208	500ml Plastic (ALE2)		X	X		
		H2SO4 (ALE244)	X				
9329154	BH5/02	500ml Plastic (ALE2)		X	X		
		H2SO4 (ALE244)	X				
9329139	CELL SUMP 5	500ml Plastic (ALE2)		X	X		
		H2SO4 (ALE244)	X				
9329141	CELL SUMP 6	500ml Plastic (ALE2)		X	X		
		H2SO4 (ALE244)	X				
9329142	CELL SUMP 7	500ml Plastic (ALE2)		X	X		
		H2SO4 (ALE244)	X				
9329137	CELL SUMP 1/2	500ml Plastic (ALE2)		X	X		
		H2SO4 (ALE244)	X				
9329138	CELL SUMP 3/4	500ml Plastic (ALE2)		X	X		
		H2SO4 (ALE244)	X				
9329136	LEACHATE LAGOON	500ml Plastic (ALE2)		X	X		
		H2SO4 (ALE244)	X				
9329149	NACW203	500ml Plastic (ALE2)		X	X		
		H2SO4 (ALE244)	X				
9329151	NACW205	500ml Plastic (ALE2)		X	X		
		H2SO4 (ALE244)	X				
9329155	NACW212	500ml Plastic (ALE2)		X	X		
		H2SO4 (ALE244)	X				
9329156	NACW228	500ml Plastic (ALE2)		X	X		
		H2SO4 (ALE244)	X				
9329143	SW201	500ml Plastic (ALE2)		X	X	X	X
		H2SO4 (ALE244)	X				
9329144	SW202	500ml Plastic (ALE2)		X	X	X	X
		H2SO4 (ALE244)	X				
9329145	SW204	500ml Plastic (ALE2)		X	X	X	X
		H2SO4 (ALE244)	X				
9329146	SW205	500ml Plastic (ALE2)		X	X	X	X
		H2SO4 (ALE244)	X				
9329147	SW206	500ml Plastic (ALE2)		X	X	X	X
		H2SO4 (ALE244)	X				
9329148	SW207	500ml Plastic (ALE2)		X	X	X	X
		H2SO4 (ALE244)	X				
9329159	UD1	500ml Plastic (ALE2)		X	X		
		H2SO4 (ALE244)	X				

CERTIFICATE OF ANALYSIS

SDG:	140523-8	**Location:**	Phase 2-3	**Order Number:**	7010 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	271774
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	9329160	9329161	9329163
			Customer Sample Reference	UD3	UD4	UD5
			AGS Reference			
			Depth (m)			
			Container	500ml Plastic (ALE2	H2SO4 (ALE244)	500ml Plastic (ALE2	H2SO4 (ALE244)	500ml Plastic (ALE2	H2SO4 (ALE244)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 23			X		X		X
Anions by Kone (w)	All	NDPs: 0 Tests: 23		X		X		X	
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 23		X		X		X	

CERTIFICATE OF ANALYSIS

SDG:	140523-8	**Location:**	Phase 2-3	**Order Number:**	7010 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	271774
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH 3/4	BH208	BH5/02	CELL SUMP 5	CELL SUMP 6	CELL SUMP 7
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	20/05/2014	20/05/2014	20/05/2014	21/05/2014	21/05/2014	21/05/2014
			Sample Time	.	.	.	.	.	.
			Date Received	22/05/2014	22/05/2014	22/05/2014	22/05/2014	22/05/2014	22/05/2014
			SDG Ref	140523-8	140523-8	140523-8	140523-8	140523-8	140523-8
			Lab Sample No.(s)	9329158	9329153	9329154	9329139	9329141	9329142
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	<0.2 #	<0.2 #	1500 #	2520 #	1700 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.288 #	0.405 #	0.423 #	21.9 #	24 #	20 #
Chloride	<2 mg/l	TM184		10 #	13.9 #	17.7 #	4880 #	3400 #	2950 #

CERTIFICATE OF ANALYSIS

SDG:	140523-8	**Location:**	Phase 2-3	**Order Number:**	7010 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	271774
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	CELL SUMP 1/2	CELL SUMP 3/4	LEACHATE LAGOON	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	21/05/2014	21/05/2014	21/05/2014	20/05/2014	20/05/2014	20/05/2014
			Sample Time	.	.	.	.	.	.
			Date Received	22/05/2014	22/05/2014	22/05/2014	22/05/2014	22/05/2014	22/05/2014
			SDG Ref	140523-8	140523-8	140523-8	140523-8	140523-8	140523-8
			Lab Sample No.(s)	9329137	9329138	9329136	9329149	9329151	9329155
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		2760 #	966 #	1200 #	<0.2 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		42.6 #	10.9 #	16.5 #	0.48 #	0.441 #	0.249 #
Chloride	<2 mg/l	TM184		11900 #	1390 #	3050 #	20.2 #	16.1 #	36.9 #

CERTIFICATE OF ANALYSIS

SDG:	140523-8	**Location:**	Phase 2-3	**Order Number:**	7010 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	271774
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Depth (m)	Sample Type	Date Sampled	Sample Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			NACW228	.	Water(GW/SW)	20/05/2014	.	22/05/2014	140523-8	9329156	
			SW201	.	Water(GW/SW)	21/05/2014	.	22/05/2014	140523-8	9329143	
			SW202	.	Water(GW/SW)	21/05/2014	.	22/05/2014	140523-8	9329144	
			SW204	.	Water(GW/SW)	21/05/2014	.	22/05/2014	140523-8	9329145	
			SW205	.	Water(GW/SW)	21/05/2014	.	22/05/2014	140523-8	9329146	
			SW206	.	Water(GW/SW)	21/05/2014	.	22/05/2014	140523-8	9329147	
Suspended solids, Total	<2 mg/l	TM022		4.5 #		45 #		2 #		<2 #	3 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	<0.2 #		<0.2 #		<0.2 #		<0.2 #		<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120	0.145 #		0.373 #		0.222 #		0.279 #		0.268 #	0.142 #
Chloride	<2 mg/l	TM184	12.4 #		30.1 #		18.5 #		10.7 #		16.9 #	18.1 #
pH	<1 pH Units	TM256		8.17 #		8.03 #		8.16 #		8.03 #	7.75 #

CERTIFICATE OF ANALYSIS

SDG:	140523-8	**Location:**	Phase 2-3	**Order Number:**	7010 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	271774
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW207	UD1	UD3	UD4	UD5
			Depth (m)	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	21/05/2014	20/05/2014	20/05/2014	20/05/2014	20/05/2014
			Sample Time	.	.	.	.	.
			Date Received	22/05/2014	22/05/2014	22/05/2014	22/05/2014	22/05/2014
			SDG Ref	140523-8	140523-8	140523-8	140523-8	140523-8
			Lab Sample No.(s)	9329148	9329159	9329160	9329161	9329163
			AGS Reference					
Suspended solids, Total	<2 mg/l	TM022		6 #				
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.303 #	0.47 #	0.347 #	0.387 #	0.291 #
Chloride	<2 mg/l	TM184		16.1 #	27.2 #	15 #	11.8 #	9.2 #
pH	<1 pH Units	TM256		8.12 #				

CERTIFICATE OF ANALYSIS

SDG:	140523-8	**Location:**	Phase 2-3	**Order Number:**	7010 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	271774
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM022	Method 2540D, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part120 1981;BS EN 872	Determination of total suspended solids in waters		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM120	Method 2510B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part 9:1970	Determination of Electrical Conductivity using a Conductivity Meter		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	140523-8	**Location:**	Phase 2-3	**Order Number:**	7010 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	271774
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	9329153	9329158	9329154	9329139	9329141	9329142	9329137	9329138	9329136	9329149
Customer Sample Ref.	BH208	BH 3/4	BH5/02	CELL SUMP 5	CELL SUMP 6	CELL SUMP 7	CELL SUMP 1/2	CELL SUMP 3/4	LEACHATE LAGOON	NACW203
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	27-May-2014	27-May-2014	27-May-2014	28-May-2014	28-May-2014	28-May-2014	28-May-2014	28-May-2014	28-May-2014	27-May-2014
Anions by Kone (w)	27-May-2014	27-May-2014	27-May-2014	30-May-2014	30-May-2014	27-May-2014	30-May-2014	30-May-2014	30-May-2014	27-May-2014
Conductivity (at 20 deg.C)	27-May-2014	27-May-2014	27-May-2014	28-May-2014	28-May-2014	28-May-2014	28-May-2014	28-May-2014	28-May-2014	28-May-2014

Lab Sample No(s)	9329151	9329155	9329156	9329143	9329144	9329145	9329146	9329147	9329148	9329159
Customer Sample Ref.	NACW205	NACW212	NACW228	SW201	SW202	SW204	SW205	SW206	SW207	UD1
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	27-May-2014	27-May-2014	27-May-2014	28-May-2014	28-May-2014	28-May-2014	28-May-2014	28-May-2014	27-May-2014	27-May-2014
Anions by Kone (w)	27-May-2014	27-May-2014	27-May-2014	27-May-2014	27-May-2014	27-May-2014	27-May-2014	27-May-2014	27-May-2014	27-May-2014
Conductivity (at 20 deg.C)	28-May-2014	27-May-2014	27-May-2014	28-May-2014	28-May-2014	28-May-2014	28-May-2014	28-May-2014	28-May-2014	27-May-2014
pH Value				28-May-2014	28-May-2014	28-May-2014	28-May-2014	28-May-2014	28-May-2014	
Suspended Solids				28-May-2014	28-May-2014	28-May-2014	28-May-2014	28-May-2014	28-May-2014	

Lab Sample No(s)	9329160	9329161	9329163
Customer Sample Ref.	UD3	UD4	UD5
AGS Ref.			
Depth			
Type	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	27-May-2014	27-May-2014	27-May-2014
Anions by Kone (w)	27-May-2014	27-May-2014	27-May-2014
Conductivity (at 20 deg.C)	27-May-2014	27-May-2014	27-May-2014

SDG:	140523-8	**Location:**	Phase 2-3	**Order Number:**	7010 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	271774
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix
General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before presevation was performed
§	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -
Trace -Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

ALcontrol Laboratories

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CWM Environmental Ltd
Nantyclaws Landfill Site
Llanddarg Road
Carmarthen
Carmarthenshire
SA32 8BG

Attention: Mike Lewis

CERTIFICATE OF ANALYSIS

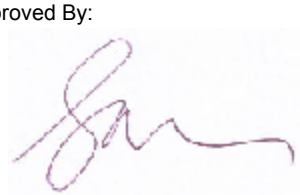
Date:	26 June 2014
Customer:	H_CWMENV_NAN
Sample Delivery Group (SDG):	140620-110
Your Reference:	
Location:	Phase 2-3
Report No:	274739

We received 23 samples on Friday June 20, 2014 and 23 of these samples were scheduled for analysis which was completed on Wednesday June 25, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:



Sonia McWhan

Operations Manager

ilac-MRA UKAS TESTING 1291

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Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No.

CERTIFICATE OF ANALYSIS

SDG:	140620-110	**Location:**	Phase 2-3	**Order Number:**	7031L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	274739
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
9477170	BH3/4		0.00 - 0.00	18/06/2014
9477172	BH5/2		0.00 - 0.00	18/06/2014
9477173	BH208		0.00 - 0.00	18/06/2014
9477175	CELL SUMP 1/		0.00 - 0.00	19/06/2014
9477178	CELL SUMP 5		0.00 - 0.00	19/06/2014
9477179	CELL SUMP 6		0.00 - 0.00	19/06/2014
9477180	CELL SUMP 7		0.00 - 0.00	19/06/2014
9477176	CELL SUMP 3/4		0.00 - 0.00	19/06/2014
9477181	LEACHATE HOLDING LAGOON		0.00 - 0.00	19/06/2014
9477183	NACW 203		0.00 - 0.00	18/06/2014
9477184	NACW 205		0.00 - 0.00	18/06/2014
9477187	NACW 212		0.00 - 0.00	18/06/2014
9477188	NACW 228		0.00 - 0.00	18/06/2014
9477189	SW 201		0.00 - 0.00	19/06/2014
9477190	SW 202		0.00 - 0.00	19/06/2014
9477191	SW 204		0.00 - 0.00	19/06/2014
9477198	SW 205		0.00 - 0.00	19/06/2014
9477199	SW 206		0.00 - 0.00	19/06/2014
9477200	SW 207		0.00 - 0.00	19/06/2014
9477201	UD 1		0.00 - 0.00	18/06/2014
9477202	UD 3		0.00 - 0.00	18/06/2014
9477203	UD 4		0.00 - 0.00	18/06/2014
9477204	UD 5		0.00 - 0.00	18/06/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	140620-110	**Location:**	Phase 2-3	**Order Number:**	7031L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	274739
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			9477170	BH3/4		0.00 - 0.00	500ml Plastic (ALE2
			9477172	BH5/2		0.00 - 0.00	H2SO4 (ALE244)
			9477173	BH208		0.00 - 0.00	500ml Plastic (ALE2
			9477175	CELL SUMP 1/		0.00 - 0.00	H2SO4 (ALE244)
			9477178	CELL SUMP 5		0.00 - 0.00	500ml Plastic (ALE2
			9477179	CELL SUMP 6		0.00 - 0.00	H2SO4 (ALE244)
			9477180	CELL SUMP 7		0.00 - 0.00	500ml Plastic (ALE2
			9477176	CELL SUMP 3/4		0.00 - 0.00	H2SO4 (ALE244)
			9477181	LEACHATE HOLDING LAGOON		0.00 - 0.00	500ml Plastic (ALE2
			9477183	NACW 203		0.00 - 0.00	H2SO4 (ALE244)
			9477184	NACW 205		0.00 - 0.00	500ml Plastic (ALE2
			9477187	NACW 212		0.00 - 0.00	H2SO4 (ALE244)
			9477188	NACW 228		0.00 - 0.00	500ml Plastic (ALE2
			9477189	SW 201		0.00 - 0.00	H2SO4 (ALE244)
			9477190	SW 202		0.00 - 0.00	500ml Plastic (ALE2
			9477191	SW 204		0.00 - 0.00	H2SO4 (ALE244)
			9477198	SW 205		0.00 - 0.00	500ml Plastic (ALE2
			9477199	SW 206		0.00 - 0.00	H2SO4 (ALE244)
			9477200	SW 207		0.00 - 0.00	500ml Plastic (ALE2
			9477201	UD 1		0.00 - 0.00	0.5l glass bottle (AL
							500ml Plastic (ALE2
Acid Herbicides by LCQQQ (aq)	All	NDPs: 0 Tests: 2					X
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 23	X	X	X

CERTIFICATE OF ANALYSIS

SDG:	140620-110	**Location:**	Phase 2-3	**Order Number:**	7031L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	274739
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			9477201	UD 1		0.00 - 0.00	H2SO4 (ALE244)
			9477202	UD 3		0.00 - 0.00	500ml Plastic (ALE2
							H2SO4 (ALE244)
			9477203	UD 4		0.00 - 0.00	0.5l glass bottle (AL
							500ml Plastic (ALE2
							H2SO4 (ALE244)
			9477204	UD 5		0.00 - 0.00	500ml Plastic (ALE2
							H2SO4 (ALE244)
Acid Herbicides by LCQQQ (aq)	All	NDPs: 0 Tests: 2					X
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 23	X	X		X	X
Anions by Kone (w)	All	NDPs: 0 Tests: 23		X		X	X
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 23		X		X	X

CERTIFICATE OF ANALYSIS

SDG:	140620-110	**Location:**	Phase 2-3	**Order Number:**	7031L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	274739
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/4	BH5/2	BH208	CELL SUMP 1/	CELL SUMP 5	CELL SUMP 6
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	18/06/2014	18/06/2014	18/06/2014	19/06/2014	19/06/2014	19/06/2014
			Sample Time	.	.	.	.	.	.
			Date Received	20/06/2014	20/06/2014	20/06/2014	20/06/2014	20/06/2014	20/06/2014
			SDG Ref	140620-110	140620-110	140620-110	140620-110	140620-110	140620-110
			Lab Sample No.(s)	9477170	9477172	9477173	9477175	9477178	9477179
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		0.218 #	<0.2 #	<0.2 #	2690 #	1460 #	2350 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.298 #	0.444 #	0.442 #	42.5 #	22.1 #	24.8 #
Chloride	<2 mg/l	TM184		11.3 #	18.3 #	14.6 #	12100 #	5250 #	3430 #

CERTIFICATE OF ANALYSIS

SDG:	140620-110	**Location:**	Phase 2-3	**Order Number:**	7031L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	274739
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	CELL SUMP 7	CELL SUMP 3/4	LEACHATE HOLDING LAGOON	NACW 203	NACW 205	NACW 212
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	19/06/2014	19/06/2014	19/06/2014	18/06/2014	18/06/2014	18/06/2014
			Sample Time	.	.	.	.	.	.
			Date Received	20/06/2014	20/06/2014	20/06/2014	20/06/2014	20/06/2014	20/06/2014
			SDG Ref	140620-110	140620-110	140620-110	140620-110	140620-110	140620-110
			Lab Sample No.(s)	9477180	9477176	9477181	9477183	9477184	9477187
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		1420 #	924 #	1220 #	<0.2 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		20 #	10.8 #	18.1 #	0.483 #	0.386 #	0.254 #
Chloride	<2 mg/l	TM184		3640 #	1390 #	3510 #	20.4 #	16.7 #	15.5 #

CERTIFICATE OF ANALYSIS

SDG:	140620-110	**Location:**	Phase 2-3	**Order Number:**	7031L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	274739
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW 228	SW 201	SW 202	SW 204	SW 205	SW 206
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	18/06/2014	19/06/2014	19/06/2014	19/06/2014	19/06/2014	19/06/2014
			Sample Time	.	.	.	.	.	.
			Date Received	20/06/2014	20/06/2014	20/06/2014	20/06/2014	20/06/2014	20/06/2014
			SDG Ref	140620-110	140620-110	140620-110	140620-110	140620-110	140620-110
			Lab Sample No.(s)	9477188	9477189	9477190	9477191	9477198	9477199
			AGS Reference						
Suspended solids, Total	<2 mg/l	TM022			50.5 #	57 #	30 #	6 #	6 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	0.236 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.311 #	0.427 #	0.43 #	0.329 #	0.267 #	0.172 #
Chloride	<2 mg/l	TM184		43 #	30.6 #	30 #	18.2 #	15.7 #	17.9 #
pH	<1 pH Units	TM256			7.95 #	7.97 #	7.88 #	7.93 #	7.43 #

CERTIFICATE OF ANALYSIS

SDG:	140620-110	**Location:**	Phase 2-3	**Order Number:**	7031L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	274739
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW 207	UD 1	UD 3	UD 4	UD 5
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	19/06/2014	18/06/2014	18/06/2014	18/06/2014	18/06/2014
			Sample Time	.	.	.	.	.
			Date Received	20/06/2014	20/06/2014	20/06/2014	20/06/2014	20/06/2014
			SDG Ref	140620-110	140620-110	140620-110	140620-110	140620-110
			Lab Sample No.(s)	9477200	9477201	9477202	9477203	9477204
			AGS Reference					
Suspended solids, Total	<2 mg/l	TM022		52 #				
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.279 #	0.363 #	0.38 #	0.337 #	0.27 #
Chloride	<2 mg/l	TM184		18.5 #	21.8 #	17.4 #	16.5 #	8.8 #
pH	<1 pH Units	TM256		7.8 #				
MCPP (Mecoprop)	<0.04 µg/l	TM324			<0.04		<0.04	

CERTIFICATE OF ANALYSIS

SDG:	140620-110	**Location:**	Phase 2-3	**Order Number:**	7031L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	274739
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM022	Method 2540D, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part120 1981;BS EN 872	Determination of total suspended solids in waters		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM120	Method 2510B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part 9:1970	Determination of Electrical Conductivity using a Conductivity Meter		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter		
TM324		Analysis of Acid Herbicides in Aqueous Sample by LCQQQ		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	140620-110	**Location:**	Phase 2-3	**Order Number:**	7031L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	274739
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	9477173	9477170	9477172	9477178	9477179	9477180	9477175	9477176	9477181	9477183
Customer Sample Ref.	BH208	BH3/4	BH5/2	CELL SUMP 5	CELL SUMP 6	CELL SUMP 7	CELL SUMP 1/	CELL SUMP 3/4	LEACHATE HOLDING LAGOON	NACW 203
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	24-Jun-2014	24-Jun-2014	24-Jun-2014	25-Jun-2014	25-Jun-2014	25-Jun-2014	25-Jun-2014	25-Jun-2014	25-Jun-2014	24-Jun-2014
Anions by Kone (w)	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014
Conductivity (at 20 deg.C)	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014

Lab Sample No(s)	9477184	9477187	9477188	9477189	9477190	9477191	9477198	9477199	9477200	9477201
Customer Sample Ref.	NACW 205	NACW 212	NACW 228	SW 201	SW 202	SW 204	SW 205	SW 206	SW 207	UD 1
AGS Ref.										
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Acid Herbicides by LCQQQ (aq)										25-Jun-2014
Ammoniacal Nitrogen	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014
Anions by Kone (w)	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014
Conductivity (at 20 deg.C)	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014	24-Jun-2014
pH Value				23-Jun-2014	24-Jun-2014	23-Jun-2014	23-Jun-2014	24-Jun-2014	23-Jun-2014	
Suspended Solids				25-Jun-2014	25-Jun-2014	25-Jun-2014	25-Jun-2014	25-Jun-2014	25-Jun-2014	

Lab Sample No(s)	9477202	9477203	9477204
Customer Sample Ref.	UD 3	UD 4	UD 5
AGS Ref.			
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	LIQUID	LIQUID	LIQUID
Acid Herbicides by LCQQQ (aq)		25-Jun-2014	
Ammoniacal Nitrogen	24-Jun-2014	24-Jun-2014	24-Jun-2014
Anions by Kone (w)	24-Jun-2014	24-Jun-2014	24-Jun-2014
Conductivity (at 20 deg.C)	24-Jun-2014	24-Jun-2014	24-Jun-2014

SDG:	140620-110	**Location:**	Phase 2-3	**Order Number:**	7031L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	274739
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix
General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before presevation was performed
§	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -
Trace -Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

ALcontrol Laboratories

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CWM Environmental Ltd
Nantyclaws Landfill Site
Llanddarg Road
Carmarthen
Carmarthenshire
SA32 8BG

Attention: Mike Lewis

CERTIFICATE OF ANALYSIS

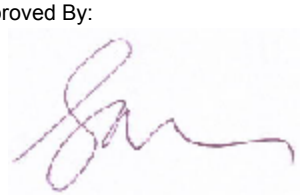
Date:	18 July 2014
Customer:	H_CWMENV_NAN
Sample Delivery Group (SDG):	140710-17
Your Reference:	
Location:	Phase 2-3
Report No:	277355

We received 13 samples on Thursday July 10, 2014 and 13 of these samples were scheduled for analysis which was completed on Friday July 18, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:



Sonia McWhan

Operations Manager

Alcontrol Laboratories is a trading division of ALcontrol UK Limited
Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No.

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
9589395	BH3/2			08/07/2014
9589396	BH3/3			08/07/2014
9589397	BH3/4			08/07/2014
9589399	BH3/5			08/07/2014
9589402	BH3/6			08/07/2014
9589403	BH3/8			08/07/2014
9589405	BH3/9			08/07/2014
9589391	BH5/2			08/07/2014
9589390	BH208			08/07/2014
9589389	NACW203			08/07/2014
9589387	NACW205			08/07/2014
9589392	NACW212			08/07/2014
9589394	NACW219			08/07/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)	9589395	9589396	9589397	9589399	9589402	9589403	9589405	9589391
Customer Sample Reference	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8	BH3/9	BH5/2
AGS Reference								
Depth (m)								

Container	1l Glass bottle (ALE	1plastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1plastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1plastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1plastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1plastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1plastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1plastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1plastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)
Acid Herbicides by LCQQQ (aq)	All	NDPs: 0 Tests: 13	X					X					X					X					X					X					X								
Alkalinity as CaCO3	All	NDPs: 0 Tests: 13		X					X					X					X					X					X					X							
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 13			X					X					X					X					X					X					X						
Anions by Kone (w)	All	NDPs: 0 Tests: 13		X					X					X					X					X					X					X							
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 13		X					X					X					X					X					X					X							
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 13		X					X					X					X					X					X					X							
EPH (DRO) (C10-C40) Aqueous (W)	All	NDPs: 0 Tests: 13	X					X					X					X					X					X					X								
GRO by GC-FID (W)	All	NDPs: 0 Tests: 13					X				X				X				X				X				X				X				X							X
Metals by iCap-OES Dissolved (W)	All	NDPs: 0 Tests: 13		X					X					X					X					X					X					X							
Nitrite by Kone (w)	All	NDPs: 0 Tests: 13				X				X					X					X					X					X					X						
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 13	X					X					X					X					X					X					X								
Total EPH (aq)	All	NDPs: 0 Tests: 13	X					X					X					X					X					X					X								
VOC MS (W)	All	NDPs: 0 Tests: 13					X				X				X				X				X				X				X				X							X

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)			9589390								9589389								9589387								9589392								9589394							
Customer Sample Reference			BH208								NACW203								NACW205								NACW212								NACW219							
AGS Reference																																											
Depth (m)																																											
Container			1l Glass bottle (ALE	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1lplastic (ALE221)	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)
Acid Herbicides by LCQQQ (aq)	All	NDPs: 0 Tests: 13	X					X					X					X					X																			
Alkalinity as CaCO3	All	NDPs: 0 Tests: 13		X					X					X					X					X																		
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 13			X					X					X					X					X																	
Anions by Kone (w)	All	NDPs: 0 Tests: 13		X					X					X					X					X																		
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 13		X					X					X					X					X																		
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 13		X					X					X					X					X																		
EPH (DRO) (C10-C40) Aqueous (W)	All	NDPs: 0 Tests: 13	X					X					X					X					X																		
GRO by GC-FID (W)	All	NDPs: 0 Tests: 13					X					X					X					X					X														X
Metals by iCap-OES Dissolved (W)	All	NDPs: 0 Tests: 13		X					X					X					X					X																		
Nitrite by Kone (w)	All	NDPs: 0 Tests: 13				X					X					X					X					X																
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 13	X					X					X					X					X																		
Total EPH (aq)	All	NDPs: 0 Tests: 13	X					X					X					X					X																		
VOC MS (W)	All	NDPs: 0 Tests: 13					X					X					X					X					X														X

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			SDG Ref	140710-17	140710-17	140710-17	140710-17	140710-17	140710-17
			Lab Sample No.(s)	9589395	9589396	9589397	9589399	9589402	9589403
			AGS Reference						
Alkalinity, Total as CaCO3	<2 mg/l	TM043		110 #	155 #	225 #	175 #	130 #	50 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	<0.2 #	0.256 #	0.678 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.253 #	0.301 #	0.388 #	0.402 #	0.34 #	0.139 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	0.117 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		1.41 #	1.84 #	2.75 #	2.2 #	2.15 #	2.04 #
Copper (diss.filt)	<0.85 µg/l	TM152		1.52 #	<0.85 #	1.25 #	3.74 #	4.99 #	2.57 #
Lead (diss.filt)	<0.02 µg/l	TM152		<0.02 #	<0.02 #	<0.02 #	<0.02 #	<0.02 #	0.034 #
Manganese (diss.filt)	<0.04 µg/l	TM152		2380 #	0.3 #	824 #	1570 #	717 #	437 #
Nickel (diss.filt)	<0.15 µg/l	TM152		1.12 #	0.853 #	2.06 #	3.5 #	4.51 #	2.16 #
Zinc (diss.filt)	<0.41 µg/l	TM152		1.13 #	1 #	1.36 #	4.28 #	1.94 #	1.75 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		<46 #	602 #	<46 #	<46 #	<46 #	12700 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		<100	602	<100	<100	<100	12700
Nitrite as NO2	<0.05 mg/l	TM184		<0.05 #	0.407 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #
Sulphate	<2 mg/l	TM184		2.5 #	6.4 #	<2 #	16.1 #	34.7 #	<2 #
Chloride	<2 mg/l	TM184		19.5 #	10.8 #	10.2 #	15.9 #	18.3 #	16.1 #
Nitrate as NO3	<0.3 mg/l	TM184		2.39 #	6.16 #	0.375 #	6.27 #	7.86 #	<0.3 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		0.544 #	1.52 #	<0.1 #	1.43 #	1.78 #	<0.1 #
Calcium (diss.filt)	<0.012 mg/l	TM228		38.4 #	51.9 #	73.8 #	67.4 #	47.8 #	14.5 #
Sodium (diss.filt)	<0.076 mg/l	TM228		10 #	9.43 #	9.36 #	10.5 #	13.2 #	8.36 #
Magnesium (diss.filt)	<0.036 mg/l	TM228		3.62 #	5.64 #	6.81 #	6.63 #	8.18 #	3.38 #
Potassium (diss.filt)	<1 mg/l	TM228		<1 #	1.05 #	<1 #	5.61 #	2.95 #	<1 #
Iron (diss.filt)	<0.019 mg/l	TM228		<0.019 #	<0.019 #	0.0689 #	<0.019 #	0.12 #	0.215 #
MCPP (Mecoprop)	<0.04 µg/l	TM324		<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	BH5/2	BH208	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			SDG Ref	140710-17	140710-17	140710-17	140710-17	140710-17	140710-17
			Lab Sample No.(s)	9589405	9589391	9589390	9589389	9589387	9589392
			AGS Reference						
Alkalinity, Total as CaCO3	<2 mg/l	TM043		95 #	225 #	230 #	250 #	200 #	235 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	0.295 #	<0.2 #	1.39 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.253 #	0.448 #	0.436 #	0.488 #	0.453 #	0.441 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		1.34 #	1.86 #	1.15 #	2.05 #	1.26 #	2.1 #
Copper (diss.filt)	<0.85 µg/l	TM152		<0.85 #	1.67 #	<0.85 #	1.37 #	<0.85 #	<0.85 #
Lead (diss.filt)	<0.02 µg/l	TM152		<0.02 #	<0.02 #	<0.02 #	<0.02 #	0.042 #	<0.02 #
Manganese (diss.filt)	<0.04 µg/l	TM152		23.2 #	1.6 #	0.045 #	2730 #	0.204 #	0.098 #
Nickel (diss.filt)	<0.15 µg/l	TM152		0.663 #	1.39 #	1.2 #	1.57 #	1.1 #	1.1 #
Zinc (diss.filt)	<0.41 µg/l	TM152		0.869 #	7.48 #	2.02 #	4.64 #	1.05 #	1.78 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		<46 #	<46 #	<46 #	<46 #	<46 #	<46 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		<100	<100	<100	<100	<100	<100
Nitrite as NO2	<0.05 mg/l	TM184		<0.05 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #	0.115 #
Sulphate	<2 mg/l	TM184		4.7 #	12.4 #	8.2 #	12.3 #	11.9 #	9.3 #
Chloride	<2 mg/l	TM184		22.3 #	19.7 #	14.8 #	20.9 #	18.2 #	15.9 #
Nitrate as NO3	<0.3 mg/l	TM184		9.01 #	12.5 #	11.2 #	10.4 #	9.44 #	10.6 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		2.04 #	2.82 #	2.54 #	2.36 #	2.14 #	2.44 #
Calcium (diss.filt)	<0.012 mg/l	TM228		44.3 #	80.1 #	78.5 #	88.7 #	82.5 #	77.7 #
Sodium (diss.filt)	<0.076 mg/l	TM228		9.63 #	12.1 #	11.6 #	9.98 #	10.5 #	11.6 #
Magnesium (diss.filt)	<0.036 mg/l	TM228		2.27 #	9.13 #	8.62 #	7.74 #	7.8 #	8.73 #
Potassium (diss.filt)	<1 mg/l	TM228		<1 #	1.62 #	1.22 #	<1 #	<1 #	1.22 #
Iron (diss.filt)	<0.019 mg/l	TM228		<0.019 #	<0.019 #	<0.019 #	<0.019 #	<0.019 #	<0.019 #
MCPP (Mecoprop)	<0.04 µg/l	TM324		<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Customer Sample R	NACW219
Depth (m)	.
Sample Type	Water(GW/SW)
Date Sampled	08/07/2014
Sampled Time	.
Date Received	10/07/2014
SDG Ref	140710-17
Lab Sample No.(s)	9589394
AGS Reference	

Component	LOD/Units	Method	
Alkalinity, Total as CaCO3	<2 mg/l	TM043	155 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	0.205 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120	0.331 #
Cadmium (diss.filt)	<0.1 µg/l	TM152	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152	1.92 #
Copper (diss.filt)	<0.85 µg/l	TM152	0.887 #
Lead (diss.filt)	<0.02 µg/l	TM152	<0.02 #
Manganese (diss.filt)	<0.04 µg/l	TM152	138 #
Nickel (diss.filt)	<0.15 µg/l	TM152	1.48 #
Zinc (diss.filt)	<0.41 µg/l	TM152	5.15 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172	<46 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172	<100
Nitrite as NO2	<0.05 mg/l	TM184	<0.05 #
Sulphate	<2 mg/l	TM184	6.2 #
Chloride	<2 mg/l	TM184	18 #
Nitrate as NO3	<0.3 mg/l	TM184	0.339 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184	<0.1 #
Calcium (diss.filt)	<0.012 mg/l	TM228	57.3 #
Sodium (diss.filt)	<0.076 mg/l	TM228	9.09 #
Magnesium (diss.filt)	<0.036 mg/l	TM228	5.04 #
Potassium (diss.filt)	<1 mg/l	TM228	<1 #
Iron (diss.filt)	<0.019 mg/l	TM228	<0.019 #
MCPP (Mecoprop)	<0.04 µg/l	TM324	<0.04

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			SDG Ref	140710-17	140710-17	140710-17	140710-17	140710-17	140710-17
			Lab Sample No.(s)	9589395	9589396	9589397	9589399	9589402	9589403
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 1 #	<3 #	<3 1 #	<3 #
Benzene	<7 µg/l	TM245		<7 #	<7 #	<7 1 #	<7 #	<7 1 #	<7 #
Toluene	<4 µg/l	TM245		<4 #	<4 #	<4 1 #	<4 #	<4 1 #	<4 #
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	<5 1 #	<5 #	<5 1 #	<5 #
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	<8 1 #	<8 #	<8 1 #	<8 #
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	<3 1 #	<3 #	<3 1 #	<3 #
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	<28 1	<28	<28 1	<28
EPH (C6-C10)	<100 µg/l	TM245		<100	<100	<100 1	<100	<100 1	<100

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	BH5/2	BH208	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			SDG Ref	140710-17	140710-17	140710-17	140710-17	140710-17	140710-17
			Lab Sample No.(s)	9589405	9589391	9589390	9589389	9589387	9589392
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 1 #
Benzene	<7 µg/l	TM245		<7 #	<7 #	<7 #	<7 #	<7 #	<7 1 #
Toluene	<4 µg/l	TM245		<4 #	<4 #	<4 #	<4 #	<4 #	<4 1 #
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	<5 #	<5 #	<5 #	<5 1 #
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	<8 #	<8 #	<8 #	<8 1 #
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 1 #
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	<28	<28	<28	<28 1
EPH (C6-C10)	<100 µg/l	TM245		<100	<100	<100	<100	<100	<100 1

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	
			NACW219	
			Depth (m)	.
			Sample Type	Water(GW/SW)
			Date Sampled	08/07/2014
			Sampled Time	.
			Date Received	10/07/2014
			SDG Ref	140710-17
			Lab Sample No.(s)	9589394
			AGS Reference	
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245	<3	1 #
Benzene	<7 µg/l	TM245	<7	1 #
Toluene	<4 µg/l	TM245	<4	1 #
Ethylbenzene	<5 µg/l	TM245	<5	1 #
m,p-Xylene	<8 µg/l	TM245	<8	1 #
o-Xylene	<3 µg/l	TM245	<3	1 #
Sum of detected BTEX	<28 µg/l	TM245	<28	1
EPH (C6-C10)	<100 µg/l	TM245	<100	1

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			SDG Ref	140710-17	140710-17	140710-17	140710-17	140710-17	140710-17
			Lab Sample No.(s)	9589395	9589396	9589397	9589399	9589402	9589403
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<2 #	<2 #	<2 #	<2 #	<2 #	6 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			SDG Ref	140710-17	140710-17	140710-17	140710-17	140710-17	140710-17
			Lab Sample No.(s)	9589395	9589396	9589397	9589399	9589402	9589403
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbazole (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chrysene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Fluorene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isophorone (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenanthrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	BH5/2	BH208	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			SDG Ref	140710-17	140710-17	140710-17	140710-17	140710-17	140710-17
			Lab Sample No.(s)	9589405	9589391	9589390	9589389	9589387	9589392
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	BH5/2	BH208	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			SDG Ref	140710-17	140710-17	140710-17	140710-17	140710-17	140710-17
			Lab Sample No.(s)	9589405	9589391	9589390	9589389	9589387	9589392
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbazole (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chrysene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Fluorene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isophorone (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenanthrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Customer Sample R	NACW219
Depth (m)	.
Sample Type	Water(GW/SW)
Date Sampled	08/07/2014
Sampled Time	.
Date Received	10/07/2014
SDG Ref	140710-17
Lab Sample No.(s)	9589394
AGS Reference	

Component	LOD/Units	Method	
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176	<1
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176	<1
Azobenzene (aq)	<1 µg/l	TM176	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176	<1 #
Acenaphthene (aq)	<1 µg/l	TM176	<1 #
Anthracene (aq)	<1 µg/l	TM176	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Customer Sample R	NACW219								
Depth (m)	.								
Sample Type	Water(GW/SW)								
Date Sampled	08/07/2014								
Sampled Time	.								
Date Received	10/07/2014								
SDG Ref	140710-17								
Lab Sample No.(s)	9589394								
AGS Reference									
Component	**LOD/Units**	**Method**							
Benzo(a)anthracene (aq)	<1 µg/l	TM176	<1 #						
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176	<1 #						
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176	<1 #						
Benzo(a)pyrene (aq)	<1 µg/l	TM176	<1 #						
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176	<1 #						
Carbazole (aq)	<1 µg/l	TM176	<1 #						
Chrysene (aq)	<1 µg/l	TM176	<1 #						
Dibenzofuran (aq)	<1 µg/l	TM176	<1 #						
n-Dibutyl phthalate (aq)	<1 µg/l	TM176	<1 #						
Diethyl phthalate (aq)	<1 µg/l	TM176	<1 #						
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176	<1 #						
Dimethyl phthalate (aq)	<1 µg/l	TM176	<1 #						
n-Dioctyl phthalate (aq)	<5 µg/l	TM176	<5 #						
Fluoranthene (aq)	<1 µg/l	TM176	<1 #						
Fluorene (aq)	<1 µg/l	TM176	<1 #						
Hexachlorobenzene (aq)	<1 µg/l	TM176	<1 #						
Hexachlorobutadiene (aq)	<1 µg/l	TM176	<1 #						
Pentachlorophenol (aq)	<1 µg/l	TM176	<1						
Phenol (aq)	<1 µg/l	TM176	<1						
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176	<1 #						
Hexachloroethane (aq)	<1 µg/l	TM176	<1 #						
Nitrobenzene (aq)	<1 µg/l	TM176	<1 #						
Naphthalene (aq)	<1 µg/l	TM176	<1 #						
Isophorone (aq)	<1 µg/l	TM176	<1 #						
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176	<1						
Phenanthrene (aq)	<1 µg/l	TM176	<1 #						
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176	<1 #						
Pyrene (aq)	<1 µg/l	TM176	<1 #						

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			SDG Ref	140710-17	140710-17	140710-17	140710-17	140710-17	140710-17
			Lab Sample No.(s)	9589395	9589396	9589397	9589399	9589402	9589403
			AGS Reference						
Dibromofluoromethane**	%	TM208		111	109	108	110	108 1	112
Toluene-d8**	%	TM208		100	97.7	100	99.7	101 1	100
4-Bromofluorobenzene**	%	TM208		95.4	97.3	96.3	97.3	94.9 1	96
Dichlorodifluoromethane	<1 µg/l	TM208		<1	<1	<1	<1	<1 1	<1
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 1 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1 1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1 1	<1
Benzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Toluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			SDG Ref	140710-17	140710-17	140710-17	140710-17	140710-17	140710-17
			Lab Sample No.(s)	9589395	9589396	9589397	9589399	9589402	9589403
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1 1	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1 1	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1 1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			SDG Ref	140710-17	140710-17	140710-17	140710-17	140710-17	140710-17
			Lab Sample No.(s)	9589395	9589396	9589397	9589399	9589402	9589403
			AGS Reference						
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1 1	<1

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	BH5/2	BH208	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			SDG Ref	140710-17	140710-17	140710-17	140710-17	140710-17	140710-17
			Lab Sample No.(s)	9589405	9589391	9589390	9589389	9589387	9589392
			AGS Reference						
Dibromofluoromethane**	%	TM208		110	111	107	110	110	112 1
Toluene-d8**	%	TM208		99.4	99.6	97.9	99.8	99.9	100 1
4-Bromofluorobenzene**	%	TM208		96.1	95.5	98.7	96.2	96.6	94.4 1
Dichlorodifluoromethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1 1
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 #	<3 1 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1 1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1 1
Benzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Toluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	BH5/2	BH208	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			SDG Ref	140710-17	140710-17	140710-17	140710-17	140710-17	140710-17
			Lab Sample No.(s)	9589405	9589391	9589390	9589389	9589387	9589392
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1 1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1 1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1 1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	BH5/2	BH208	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014	08/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			SDG Ref	140710-17	140710-17	140710-17	140710-17	140710-17	140710-17
			Lab Sample No.(s)	9589405	9589391	9589390	9589389	9589387	9589392
			AGS Reference						
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1 1

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Customer Sample R	NACW219
Depth (m)	.
Sample Type	Water(GW/SW)
Date Sampled	08/07/2014
Sampled Time	.
Date Received	10/07/2014
SDG Ref	140710-17
Lab Sample No.(s)	9589394
AGS Reference	

Component	LOD/Units	Method	
Dibromofluoromethane**	%	TM208	108 1
Toluene-d8**	%	TM208	99.9 1
4-Bromofluorobenzene**	%	TM208	94.7 1
Dichlorodifluoromethane	<1 µg/l	TM208	<1 1
Chloromethane	<1 µg/l	TM208	<1 1 #
Vinyl chloride	<1 µg/l	TM208	<1 1 #
Bromomethane	<1 µg/l	TM208	<1 1 #
Chloroethane	<1 µg/l	TM208	<1 1 #
Trichlorofluoromethane	<1 µg/l	TM208	<1 1 #
1,1-Dichloroethene	<1 µg/l	TM208	<1 1 #
Carbon disulphide	<1 µg/l	TM208	<1 1 #
Dichloromethane	<3 µg/l	TM208	<3 1 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208	<1 1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208	<1 1 #
1,1-Dichloroethane	<1 µg/l	TM208	<1 1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208	<1 1 #
2,2-Dichloropropane	<1 µg/l	TM208	<1 1
Bromochloromethane	<1 µg/l	TM208	<1 1 #
Chloroform	<1 µg/l	TM208	<1 1 #
1,1,1-Trichloroethane	<1 µg/l	TM208	<1 1 #
1,1-Dichloropropene	<1 µg/l	TM208	<1 1 #
Carbontetrachloride	<1 µg/l	TM208	<1 1 #
1,2-Dichloroethane	<1 µg/l	TM208	<1 1
Benzene	<1 µg/l	TM208	<1 1 #
Trichloroethene	<1 µg/l	TM208	<1 1 #
1,2-Dichloropropane	<1 µg/l	TM208	<1 1 #
Dibromomethane	<1 µg/l	TM208	<1 1 #
Bromodichloromethane	<1 µg/l	TM208	<1 1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208	<1 1 #
Toluene	<1 µg/l	TM208	<1 1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208	<1 1 #
1,1,2-Trichloroethane	<1 µg/l	TM208	<1 1 #

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Customer Sample R	NACW219								
Depth (m)	.								
Sample Type	Water(GW/SW)								
Date Sampled	08/07/2014								
Sampled Time	.								
Date Received	10/07/2014								
SDG Ref	140710-17								
Lab Sample No.(s)	9589394								
AGS Reference									
Component	**LOD/Units**	**Method**							
1,3-Dichloropropane	<1 µg/l	TM208	<1 1 #						
Tetrachloroethene	<1 µg/l	TM208	<1 1 #						
Dibromochloromethane	<1 µg/l	TM208	<1 1 #						
1,2-Dibromoethane	<1 µg/l	TM208	<1 1 #						
Chlorobenzene	<1 µg/l	TM208	<1 1 #						
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208	<1 1 #						
Ethylbenzene	<1 µg/l	TM208	<1 1 #						
m,p-Xylene	<1 µg/l	TM208	<1 1 #						
o-Xylene	<1 µg/l	TM208	<1 1 #						
Styrene	<1 µg/l	TM208	<1 1 #						
Bromoform	<1 µg/l	TM208	<1 1 #						
Isopropylbenzene	<1 µg/l	TM208	<1 1 #						
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208	<1 1						
1,2,3-Trichloropropane	<1 µg/l	TM208	<1 1 #						
Bromobenzene	<1 µg/l	TM208	<1 1 #						
Propylbenzene	<1 µg/l	TM208	<1 1 #						
2-Chlorotoluene	<1 µg/l	TM208	<1 1 #						
1,3,5-Trimethylbenzene	<1 µg/l	TM208	<1 1 #						
4-Chlorotoluene	<1 µg/l	TM208	<1 1 #						
tert-Butylbenzene	<1 µg/l	TM208	<1 1 #						
1,2,4-Trimethylbenzene	<1 µg/l	TM208	<1 1 #						
sec-Butylbenzene	<1 µg/l	TM208	<1 1 #						
4-iso-Propyltoluene	<1 µg/l	TM208	<1 1 #						
1,3-Dichlorobenzene	<1 µg/l	TM208	<1 1 #						
1,4-Dichlorobenzene	<1 µg/l	TM208	<1 1 #						
n-Butylbenzene	<1 µg/l	TM208	<1 1 #						
1,2-Dichlorobenzene	<1 µg/l	TM208	<1 1						
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208	<1 1						
1,2,4-Trichlorobenzene	<1 µg/l	TM208	<1 1 #						
Hexachlorobutadiene	<1 µg/l	TM208	<1 1 #						
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208	<1 1 #						
Naphthalene	<1 µg/l	TM208	<1 1 #						

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Customer Sample R	NACW219							
Depth (m)	.							
Sample Type	Water(GW/SW)							
Date Sampled	08/07/2014							
Sampled Time	.							
Date Received	10/07/2014							
SDG Ref	140710-17							
Lab Sample No.(s)	9589394							
AGS Reference								
Component	**LOD/Units**	**Method**						
1,2,3-Trichlorobenzene	<1 µg/l	TM208	<1 1 #					
1,3,5-Trichlorobenzene	<1 µg/l	TM208	<1 1					

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples		
TM061	Method for the Determination of EPH,Massachusetts Dept.of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM120	Method 2510B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part 9:1970	Determination of Electrical Conductivity using a Conductivity Meter		
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS		
TM172	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	EPH in Waters		
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters		
TM228	US EPA Method 6010B	Determination of Major Cations in Water by iCap 6500 Duo ICP-OES		
TM245	By GC-FID	Determination of GRO by Headspace in waters		
TM324		Analysis of Acid Herbicides in Aqueous Sample by LCQQQ		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	9589390	9589395	9589396	9589397	9589399	9589402	9589403	9589405	9589391	9589389
Customer Sample Ref.	BH208	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8	BH3/9	BH5/2	NACW203
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Acid Herbicides by LCQQQ (aq)	14-Jul-2014	15-Jul-2014	14-Jul-2014	14-Jul-2014	15-Jul-2014	14-Jul-2014	14-Jul-2014	15-Jul-2014	14-Jul-2014	15-Jul-2014
Alkalinity as CaCO3	13-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014
Ammoniacal Nitrogen	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014
Anions by Kone (w)	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014
Conductivity (at 20 deg.C)	11-Jul-2014	11-Jul-2014	11-Jul-2014	11-Jul-2014	11-Jul-2014	11-Jul-2014	11-Jul-2014	11-Jul-2014	11-Jul-2014	11-Jul-2014
Dissolved Metals by ICP-MS	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014
EPH (DRO) (C10-C40) Aqueous (W)	16-Jul-2014	16-Jul-2014	16-Jul-2014	17-Jul-2014	17-Jul-2014	16-Jul-2014	16-Jul-2014	17-Jul-2014	17-Jul-2014	16-Jul-2014
GRO by GC-FID (W)	16-Jul-2014	18-Jul-2014	16-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014
Metals by iCap-OES Dissolved (W)	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014
Nitrite by Kone (w)	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014
SVOC MS (W) - Aqueous	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014
Total EPH (aq)	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014
VOC MS (W)	18-Jul-2014	18-Jul-2014	17-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014

Lab Sample No(s)	9589387	9589392	9589394
Customer Sample Ref.	NACW205	NACW212	NACW219
AGS Ref.			
Depth			
Type	LIQUID	LIQUID	LIQUID
Acid Herbicides by LCQQQ (aq)	14-Jul-2014	14-Jul-2014	14-Jul-2014
Alkalinity as CaCO3	16-Jul-2014	16-Jul-2014	16-Jul-2014
Ammoniacal Nitrogen	14-Jul-2014	14-Jul-2014	14-Jul-2014
Anions by Kone (w)	14-Jul-2014	14-Jul-2014	14-Jul-2014
Conductivity (at 20 deg.C)	11-Jul-2014	11-Jul-2014	11-Jul-2014
Dissolved Metals by ICP-MS	14-Jul-2014	14-Jul-2014	14-Jul-2014
EPH (DRO) (C10-C40) Aqueous (W)	16-Jul-2014	16-Jul-2014	17-Jul-2014
GRO by GC-FID (W)	18-Jul-2014	18-Jul-2014	18-Jul-2014
Metals by iCap-OES Dissolved (W)	14-Jul-2014	14-Jul-2014	14-Jul-2014
Nitrite by Kone (w)	14-Jul-2014	14-Jul-2014	14-Jul-2014
SVOC MS (W) - Aqueous	15-Jul-2014	15-Jul-2014	15-Jul-2014
Total EPH (aq)	18-Jul-2014	18-Jul-2014	18-Jul-2014
VOC MS (W)	18-Jul-2014	18-Jul-2014	18-Jul-2014

CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

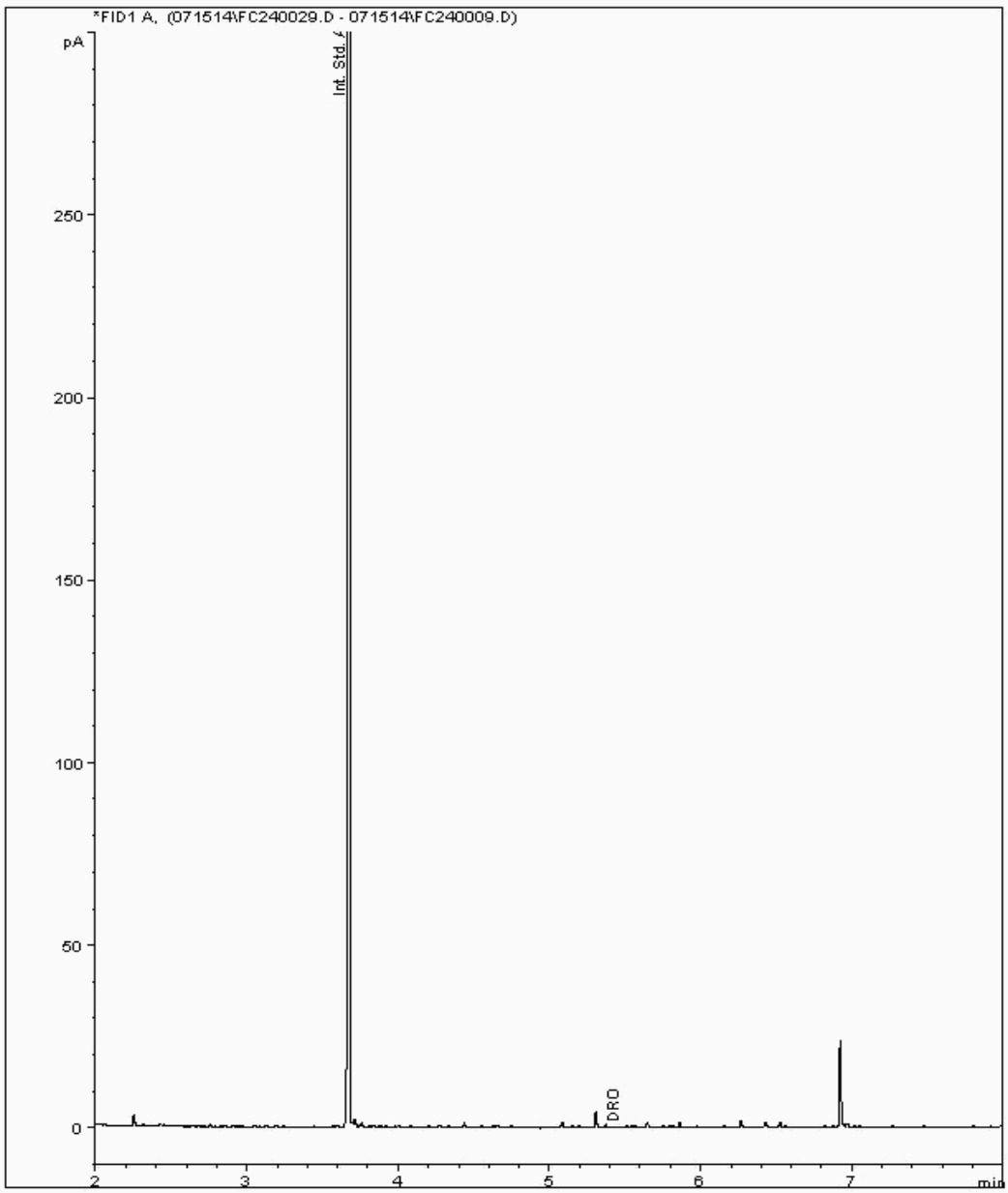
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9596687
Sample ID : NACW205

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9106768-9596687
Date Acquired : 15/07/2014 23:54:40 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

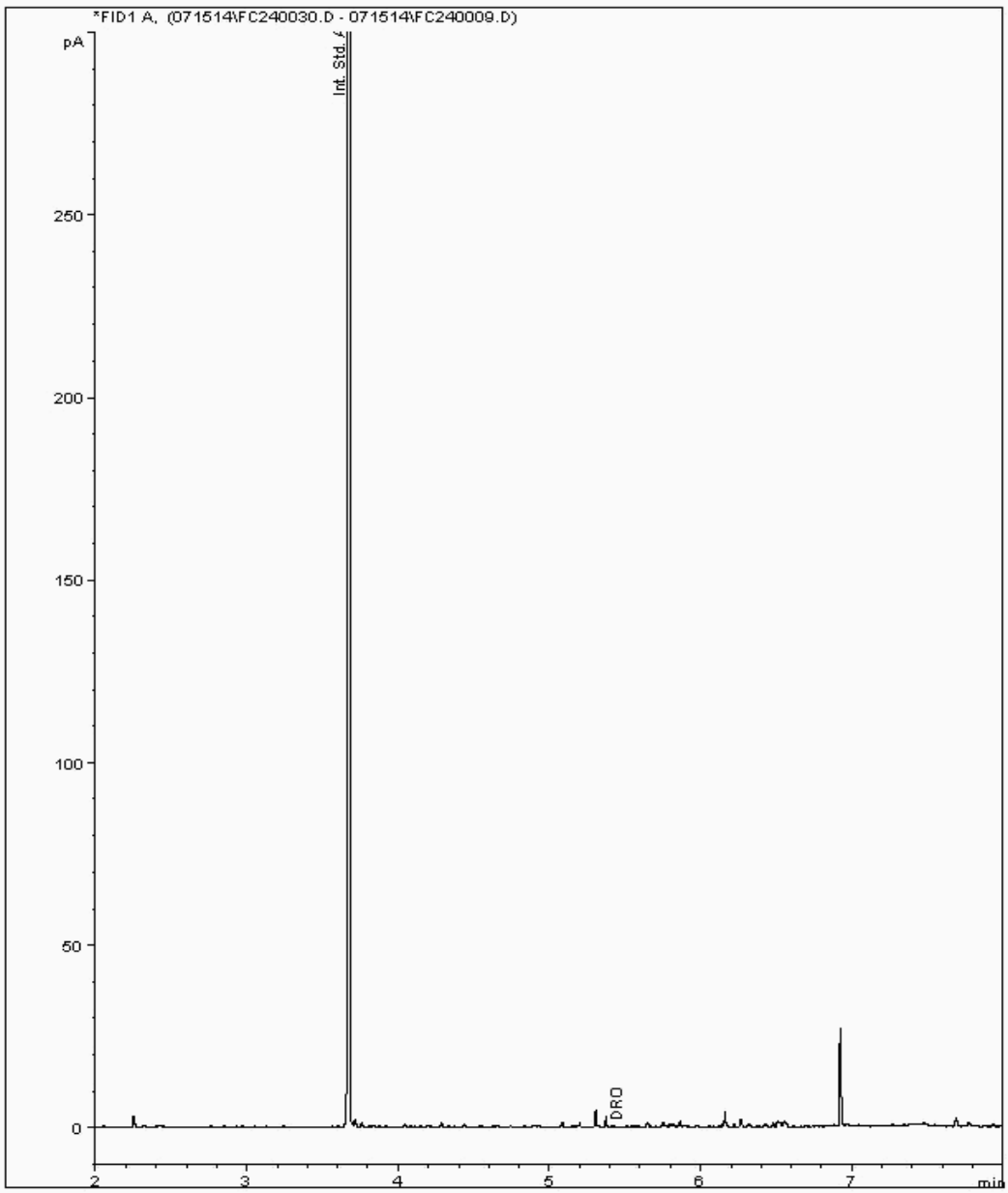
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9596699
Sample ID : NACW212

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9106882-9596699
Date Acquired : 16/07/2014 00:17:52 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

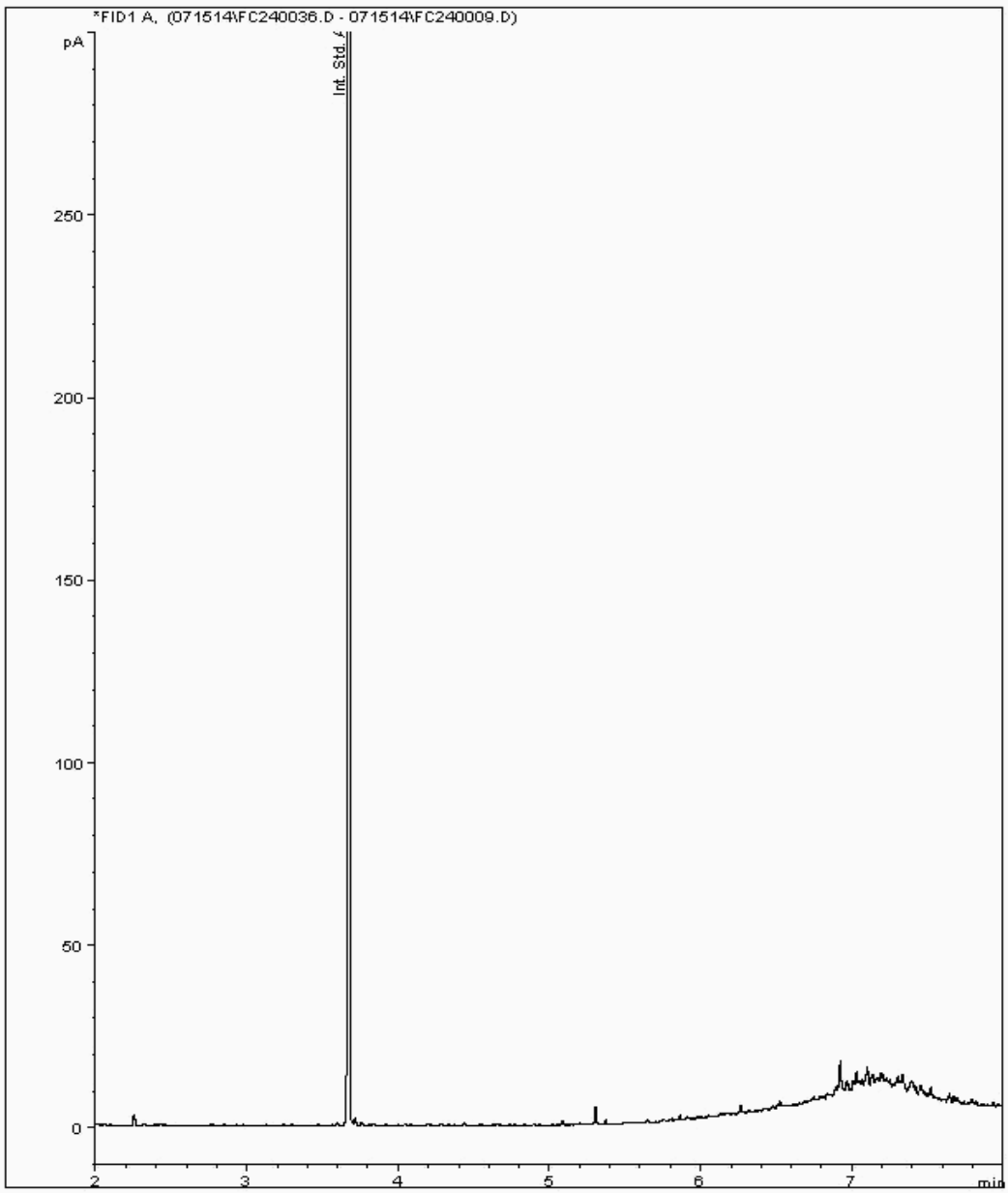
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9596741
Sample ID : BH3/3

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9106938-9596741
Date Acquired : 16/07/2014 02:37:59 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

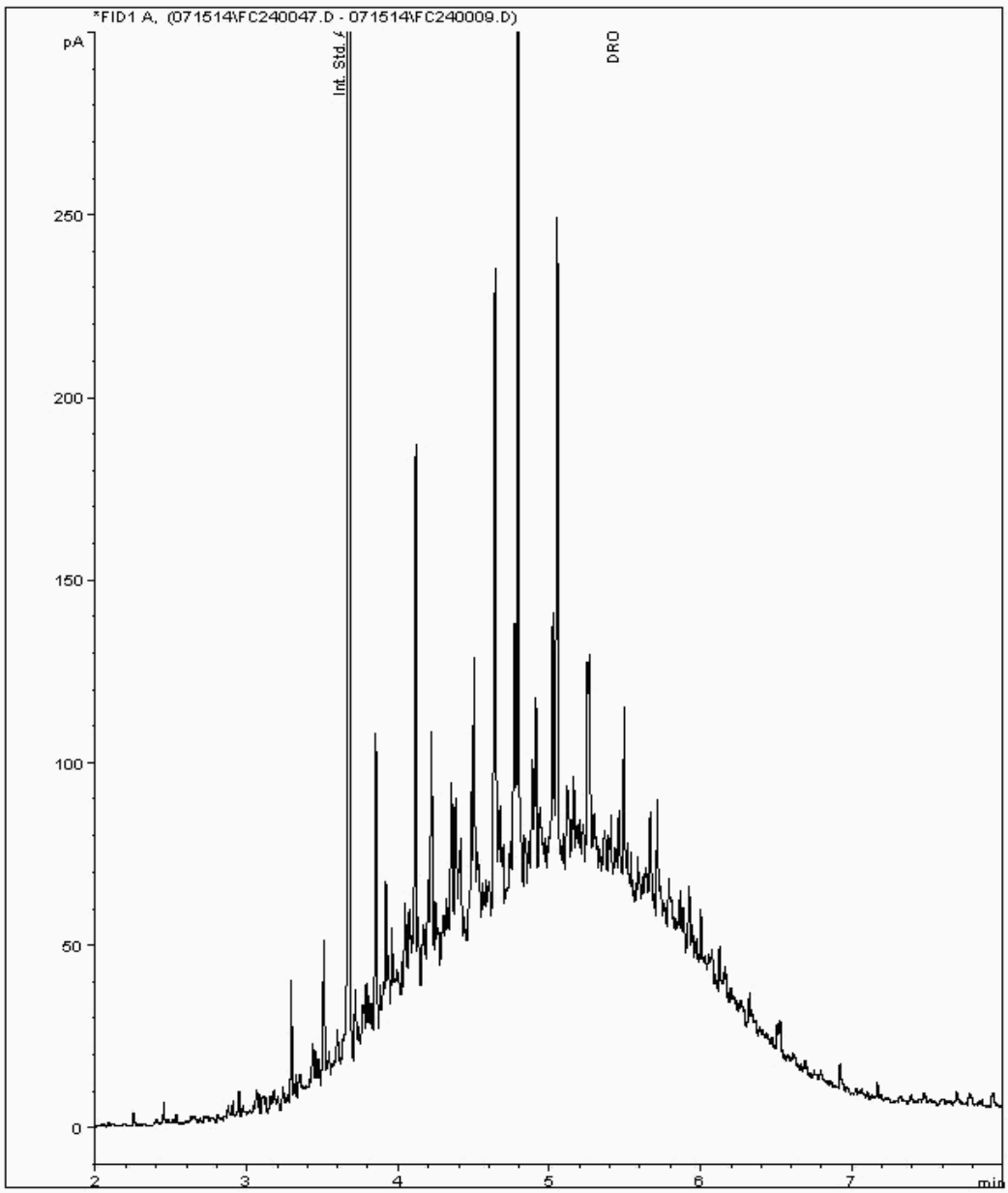
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9596807
Sample ID : BH3/8

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9107063-9596807
Date Acquired : 16/07/2014 11:23:22 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

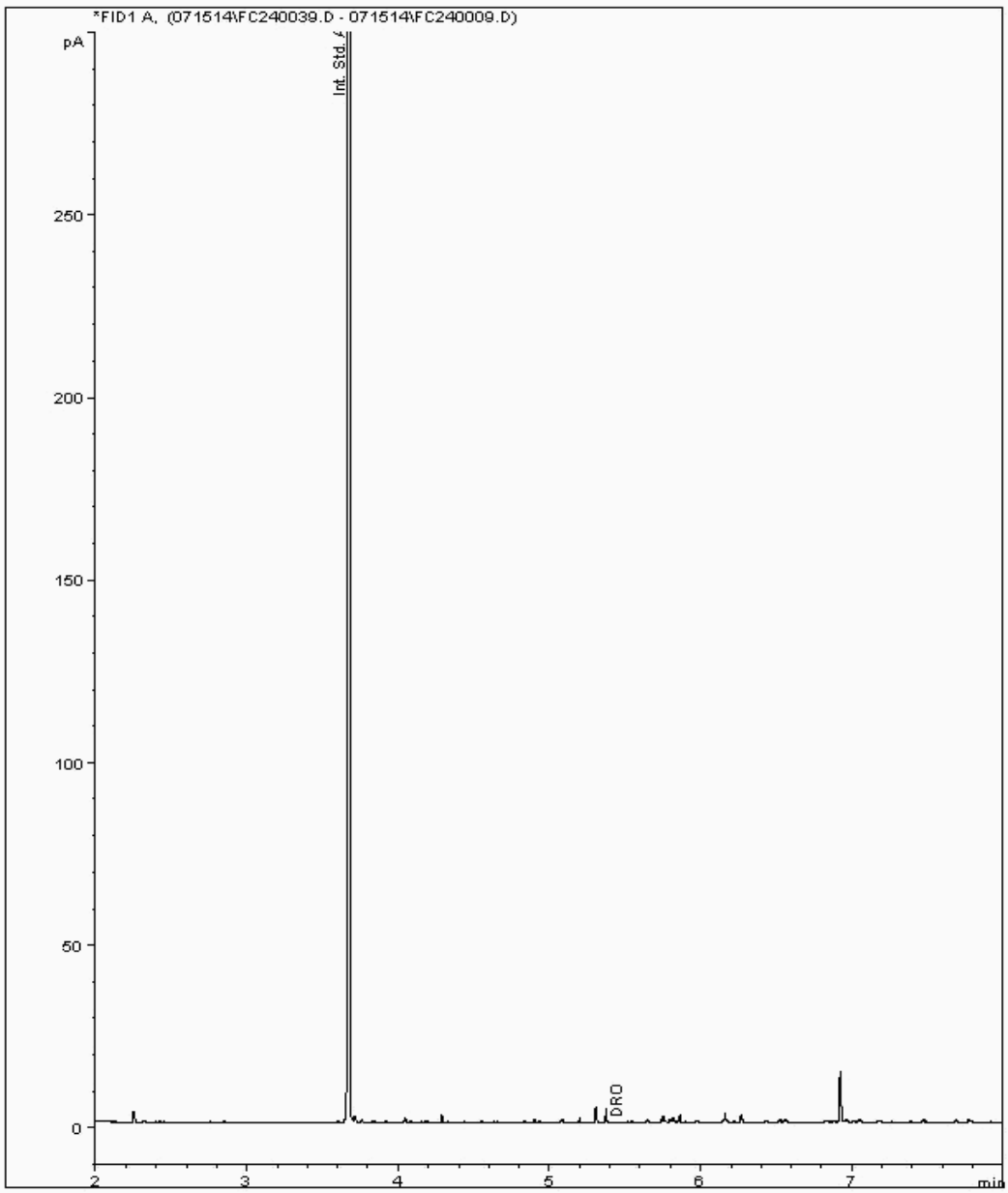
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9597335
Sample ID : BH3/6

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9107032-9597335
Date Acquired : 16/07/2014 03:48:10 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

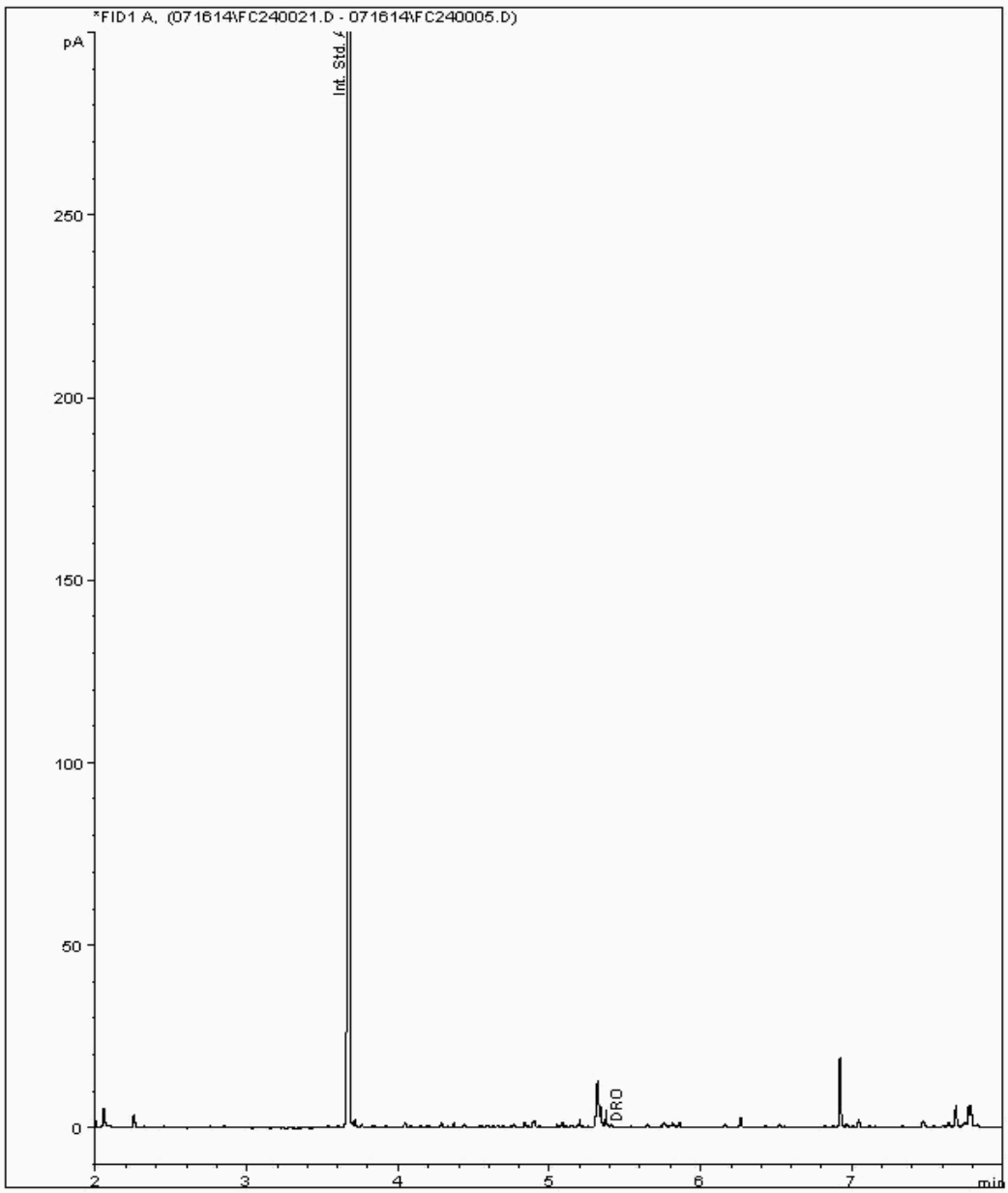
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9597486
Sample ID : NACW219

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9106896-9597486
Date Acquired : 16/07/2014 21:37:41 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

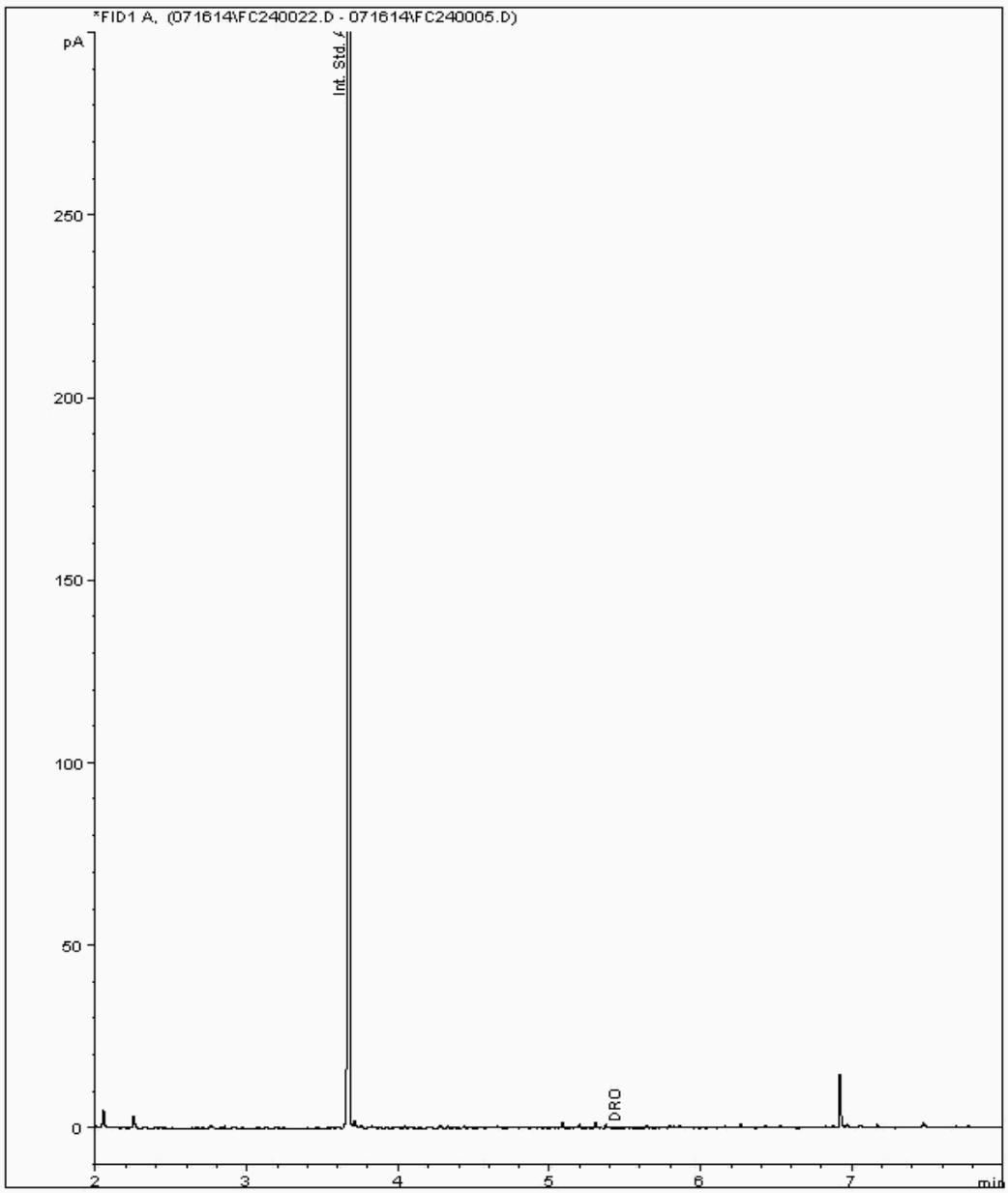
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9597543
Sample ID : BH3/4

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9106970-9597543
Date Acquired : 16/07/2014 22:00:26 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

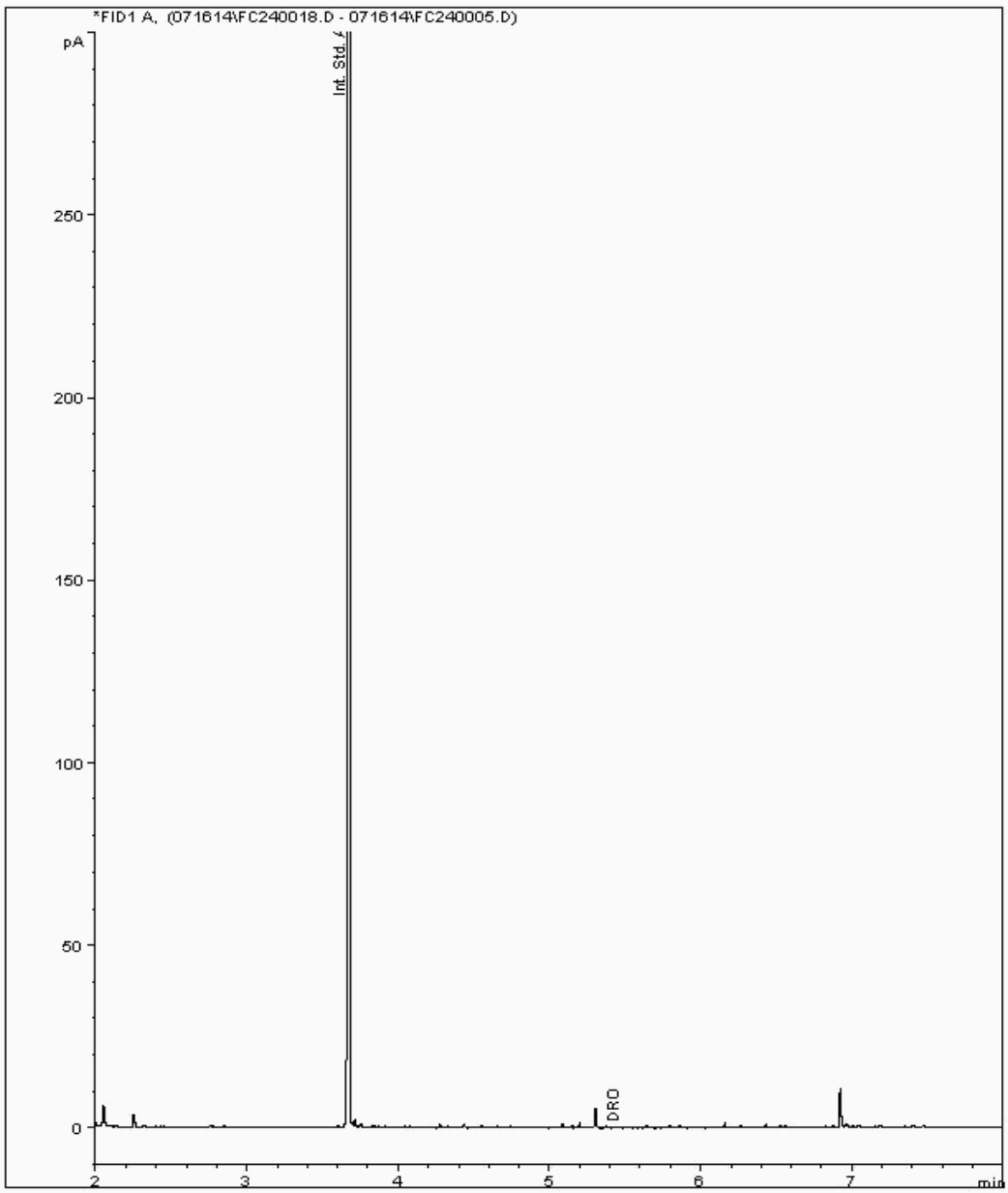
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9597669
Sample ID : BH5/2

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9106849-9597669
Date Acquired : 16/07/2014 20:29:33 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

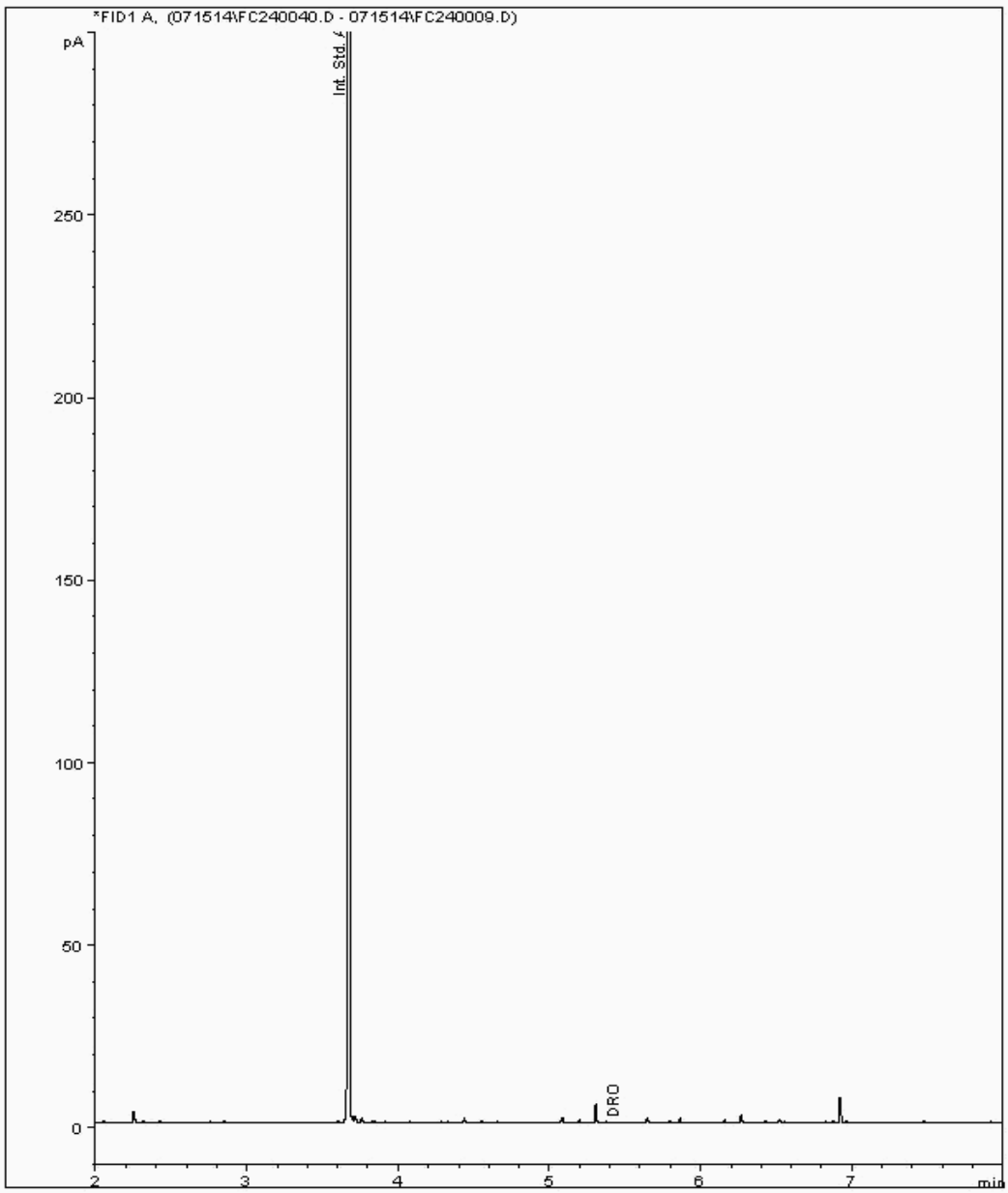
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9597788
Sample ID : BH208

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9106834-9597788
Date Acquired : 16/07/2014 04:11:38 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

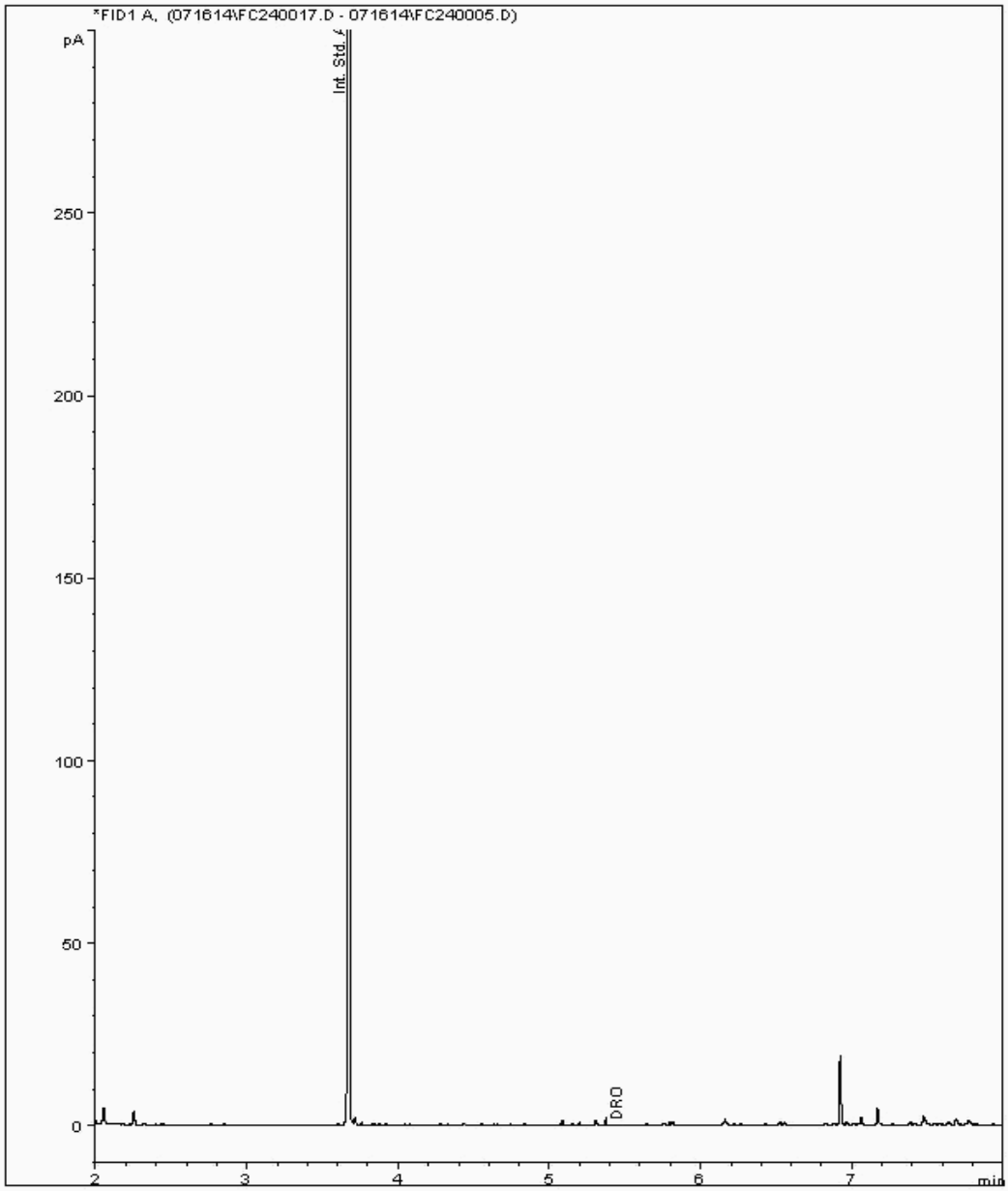
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9598443
Sample ID : BH3/5

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9107001-9598443
Date Acquired : 16/07/2014 20:06:48 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

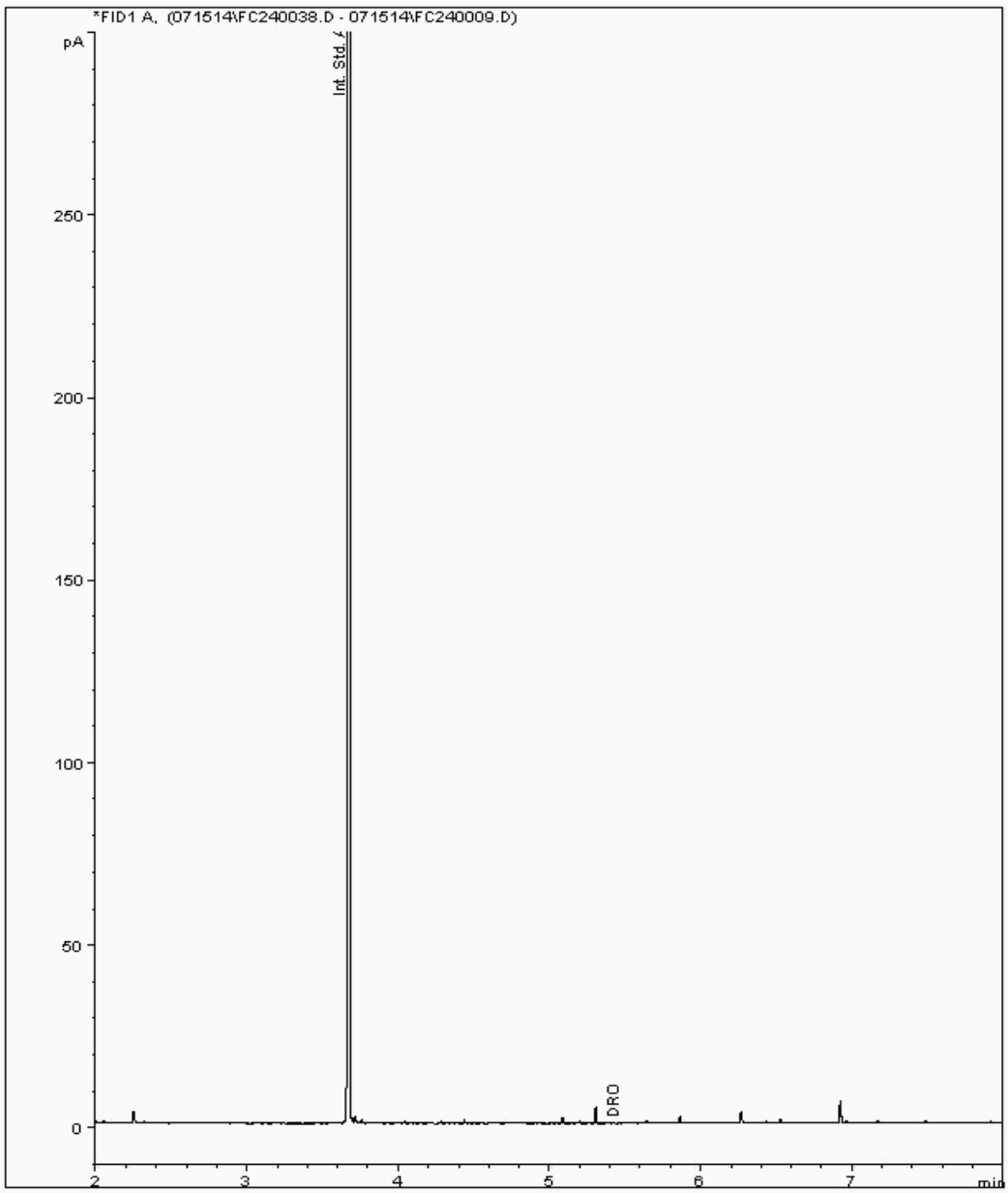
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9598537
Sample ID : BH3/2

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9106913-9598537
Date Acquired : 16/07/2014 03:24:50 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

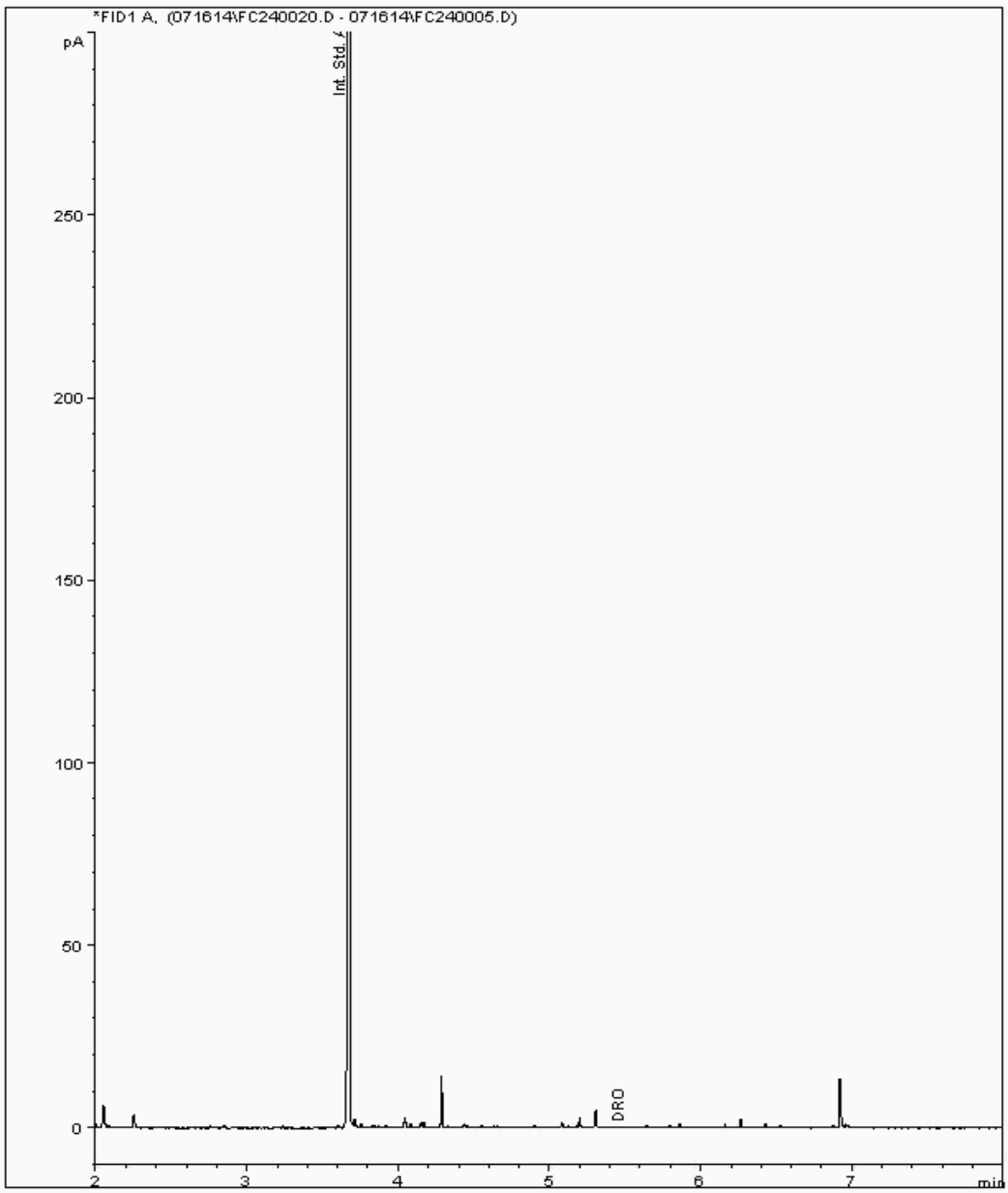
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9598601
Sample ID : BH3/9

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9107099-9598601
Date Acquired : 16/07/2014 21:15:07 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

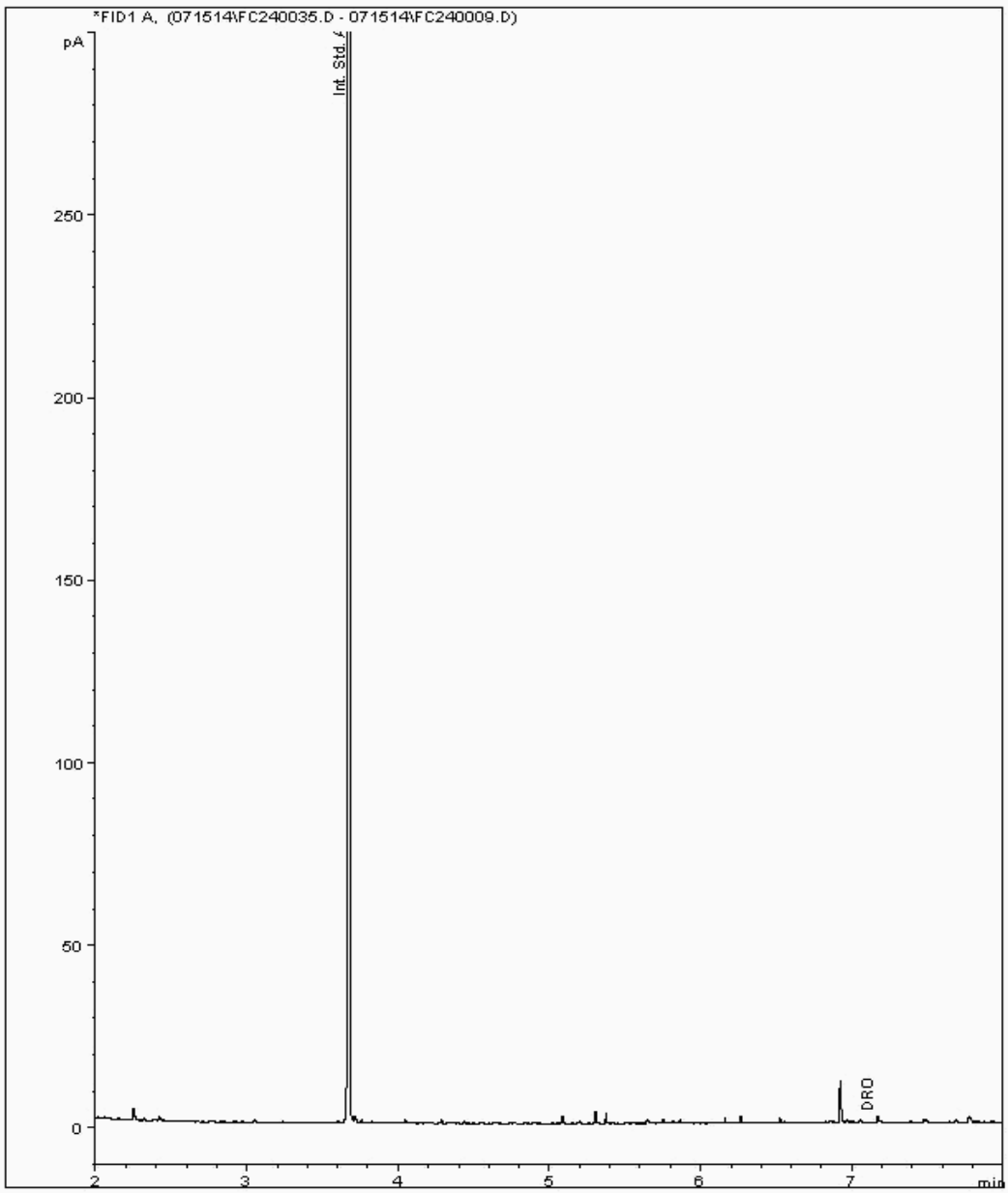
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9598790
Sample ID : NACW203

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9106801-9598790
Date Acquired : 16/07/2014 02:14:42 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

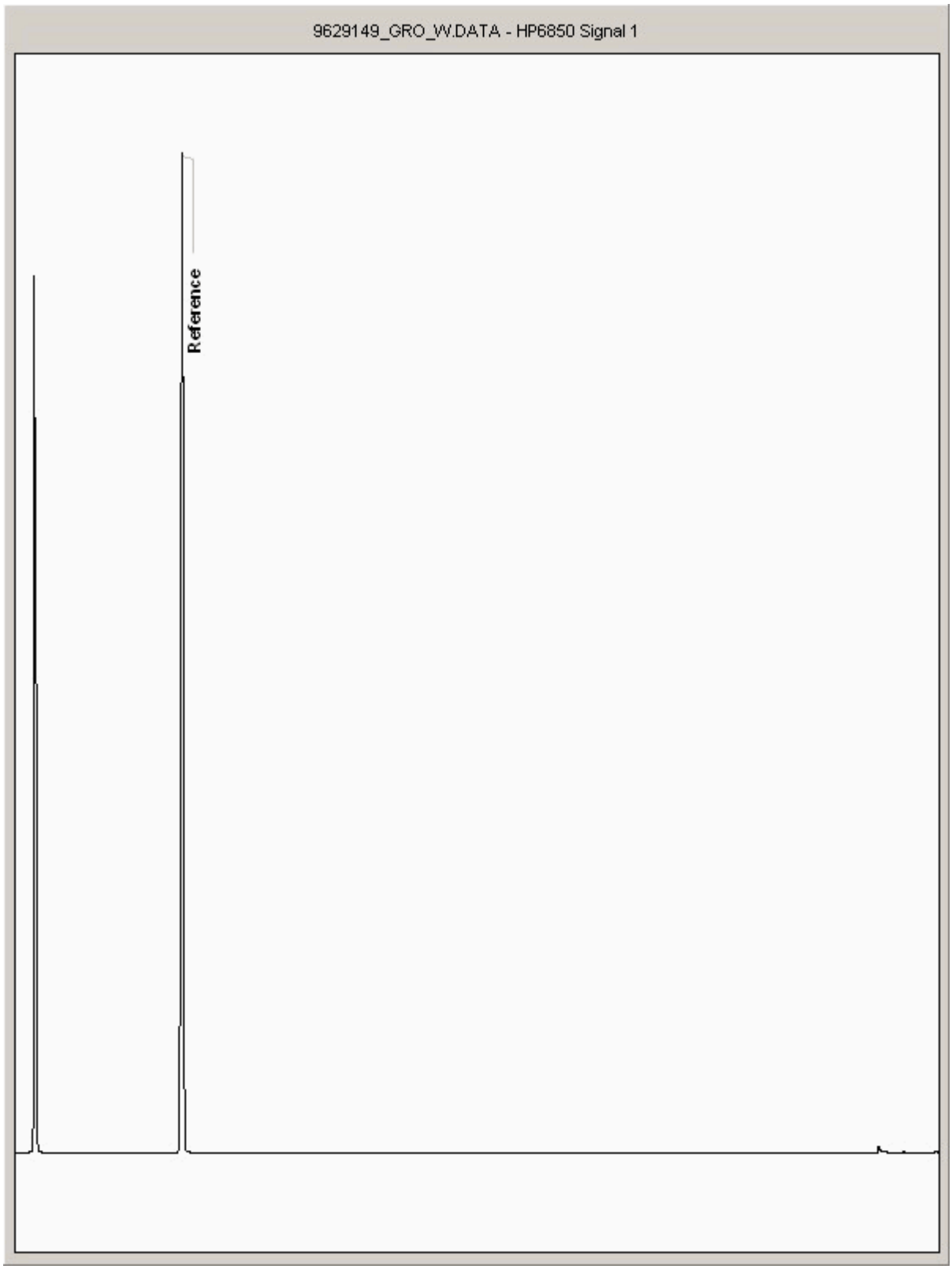
SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9629149
Sample ID : BH3/3

Depth :



CERTIFICATE OF ANALYSIS

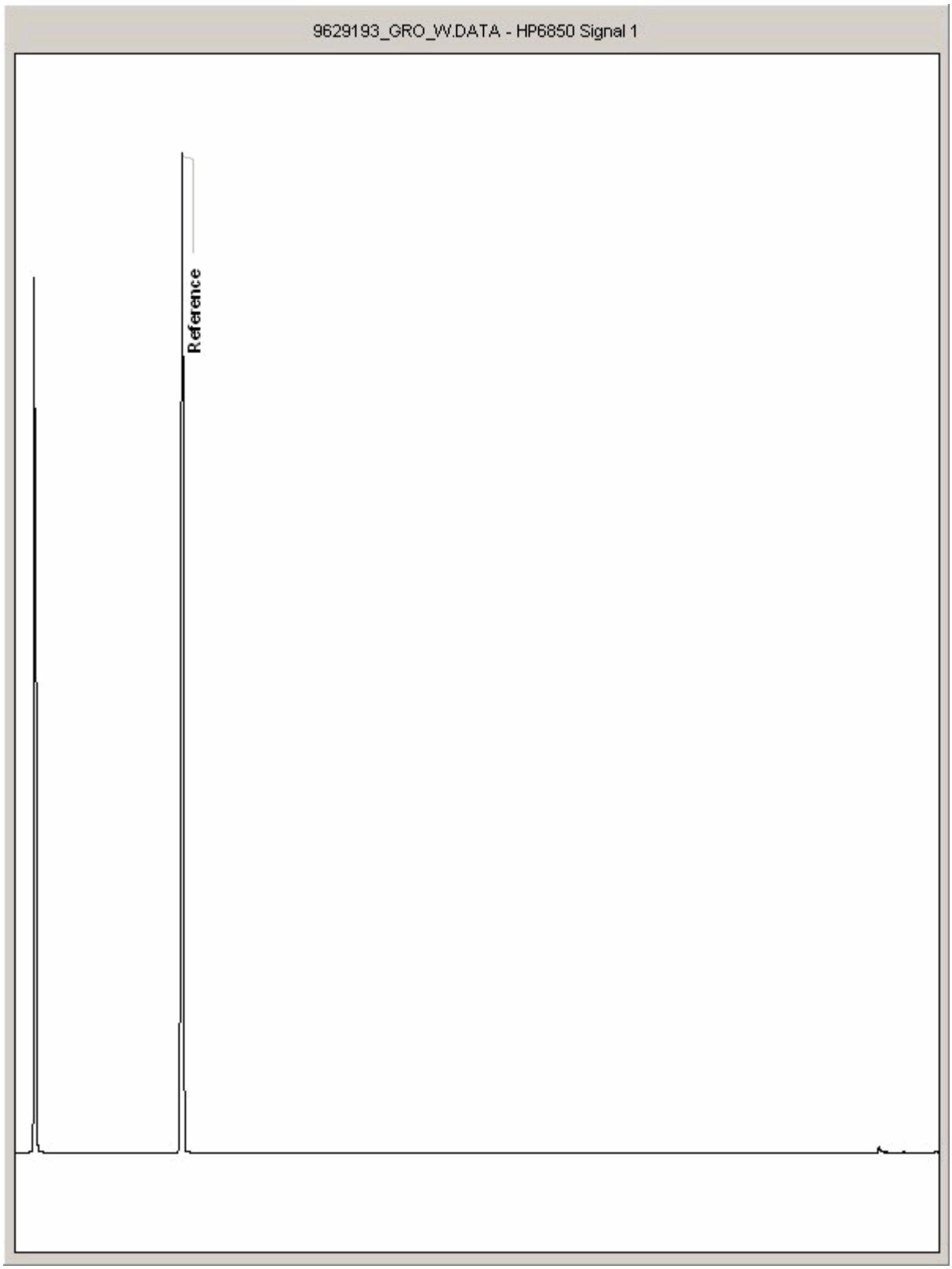
SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9629193
Sample ID : BH208

Depth :



CERTIFICATE OF ANALYSIS

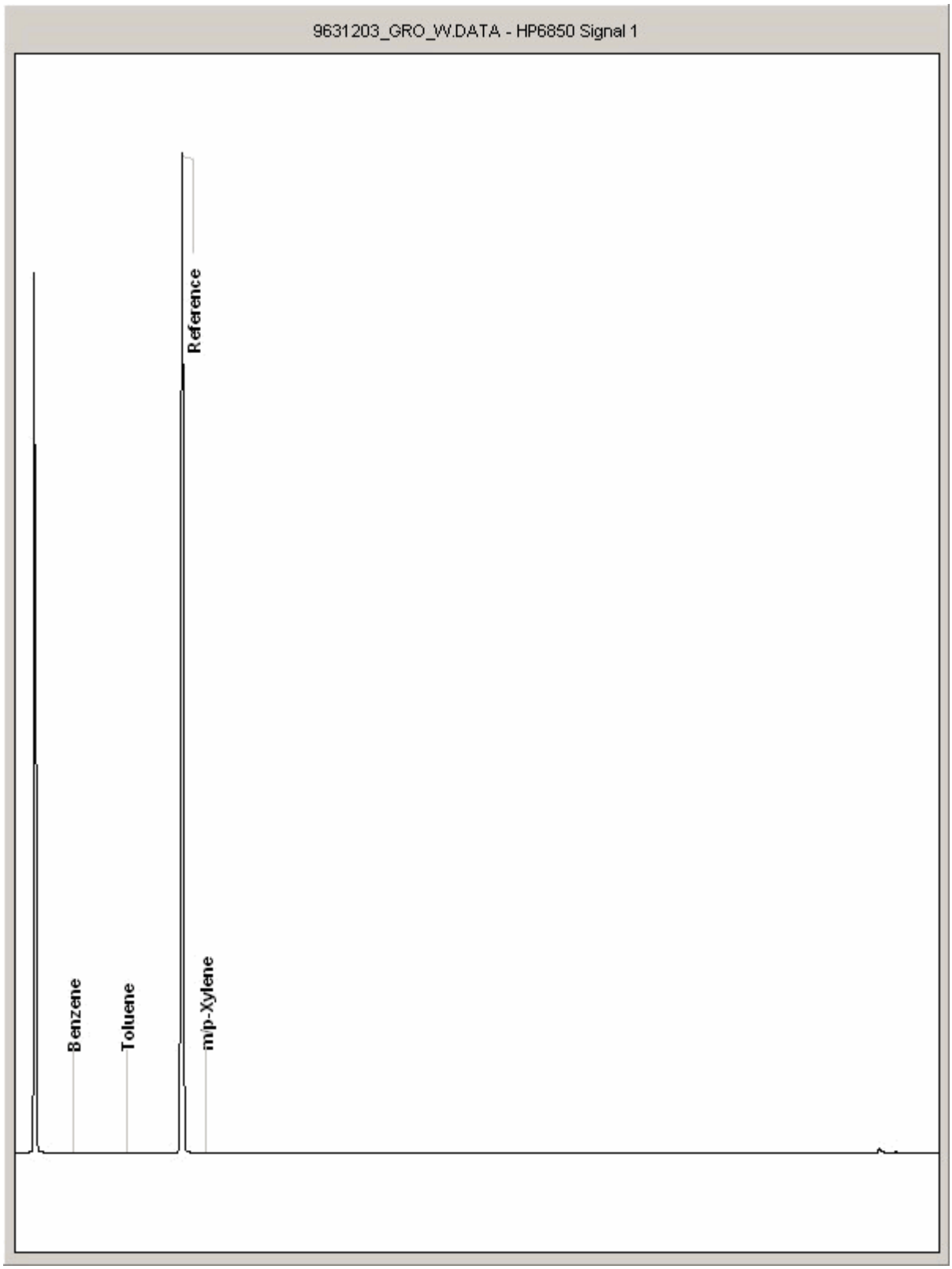
SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9631203
Sample ID : NACW219

Depth :



CERTIFICATE OF ANALYSIS

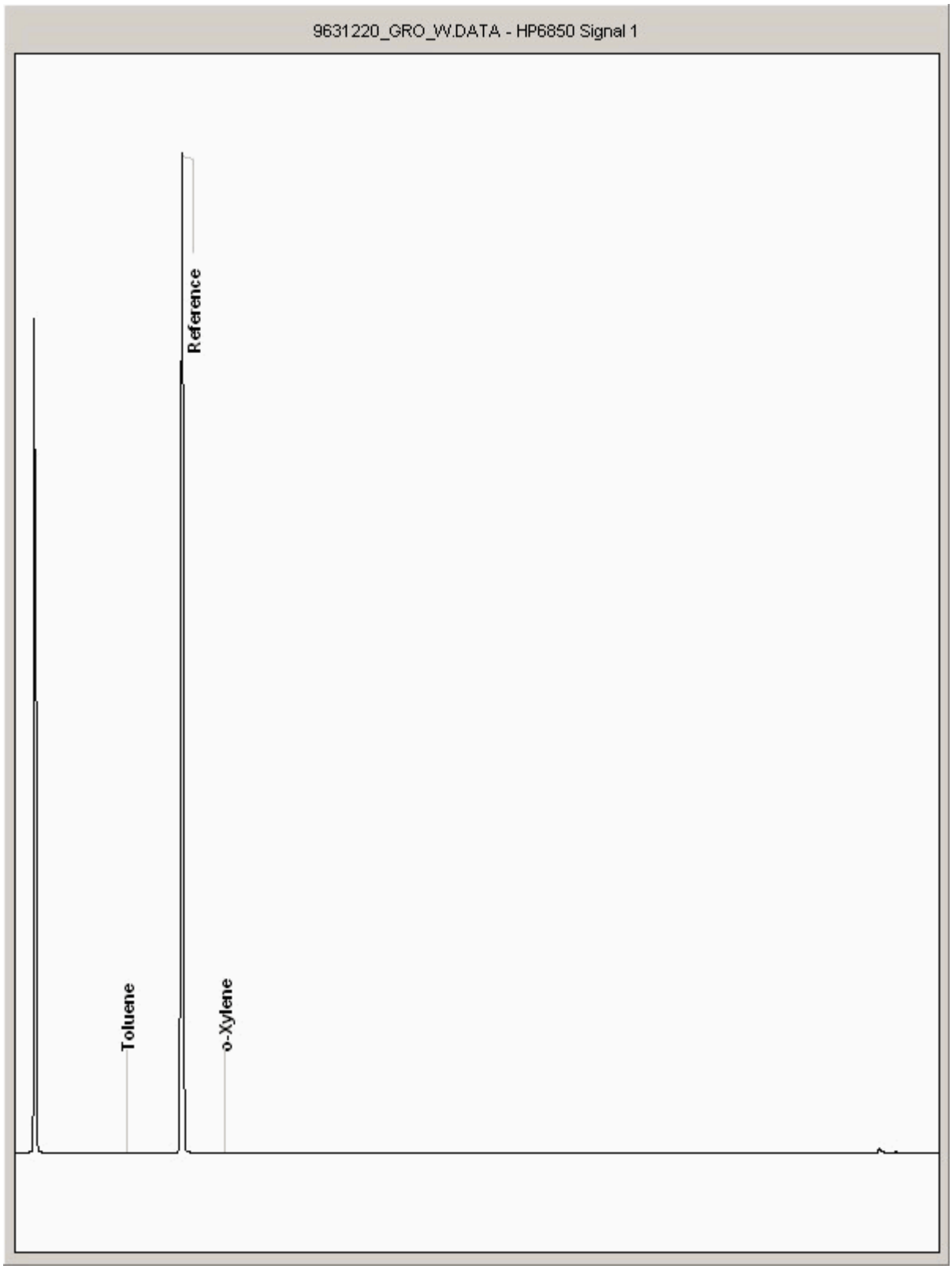
SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9631220
Sample ID : BH3/5

Depth :



CERTIFICATE OF ANALYSIS

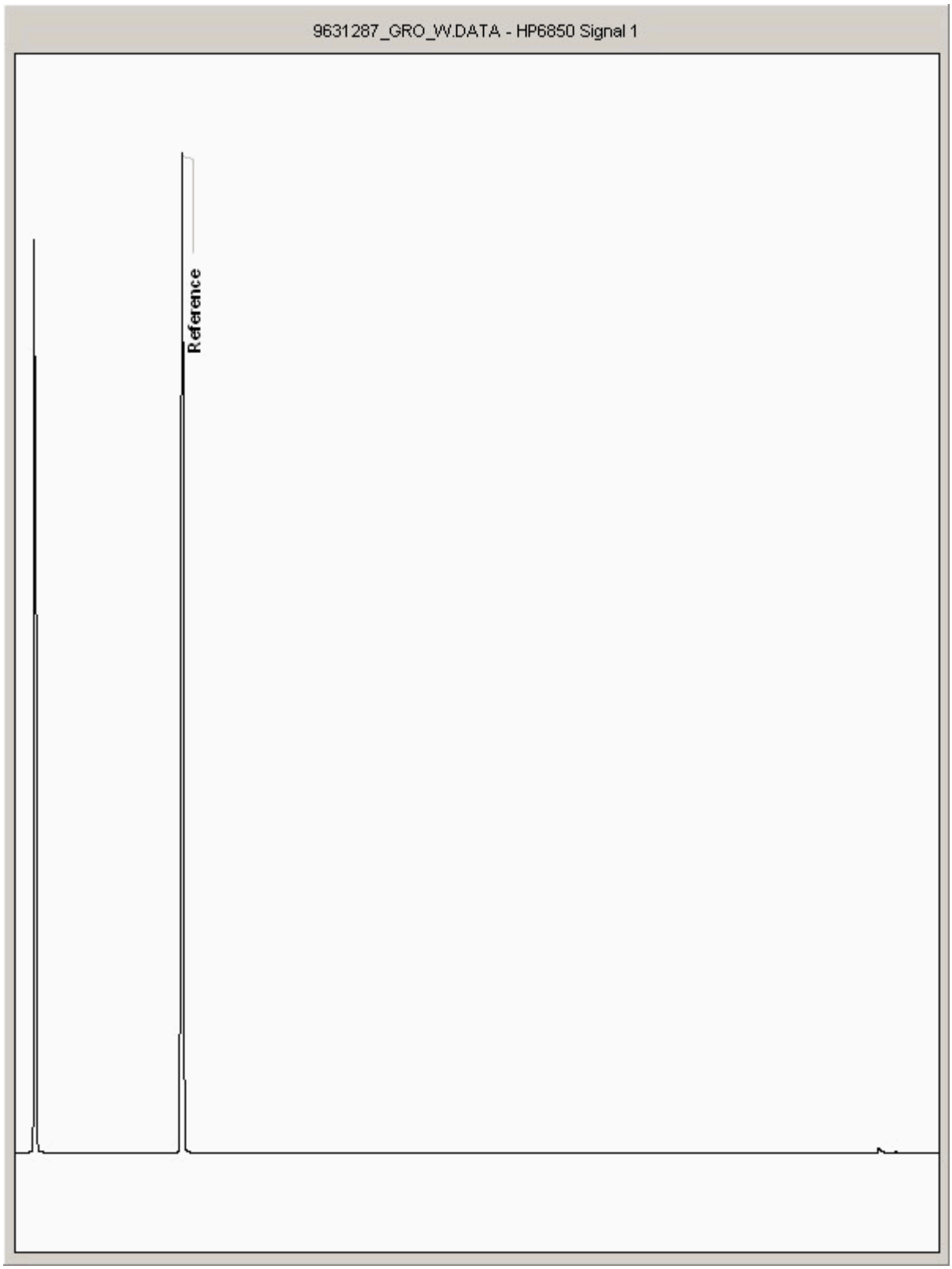
SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9631287
Sample ID : NACW205

Depth :



CERTIFICATE OF ANALYSIS

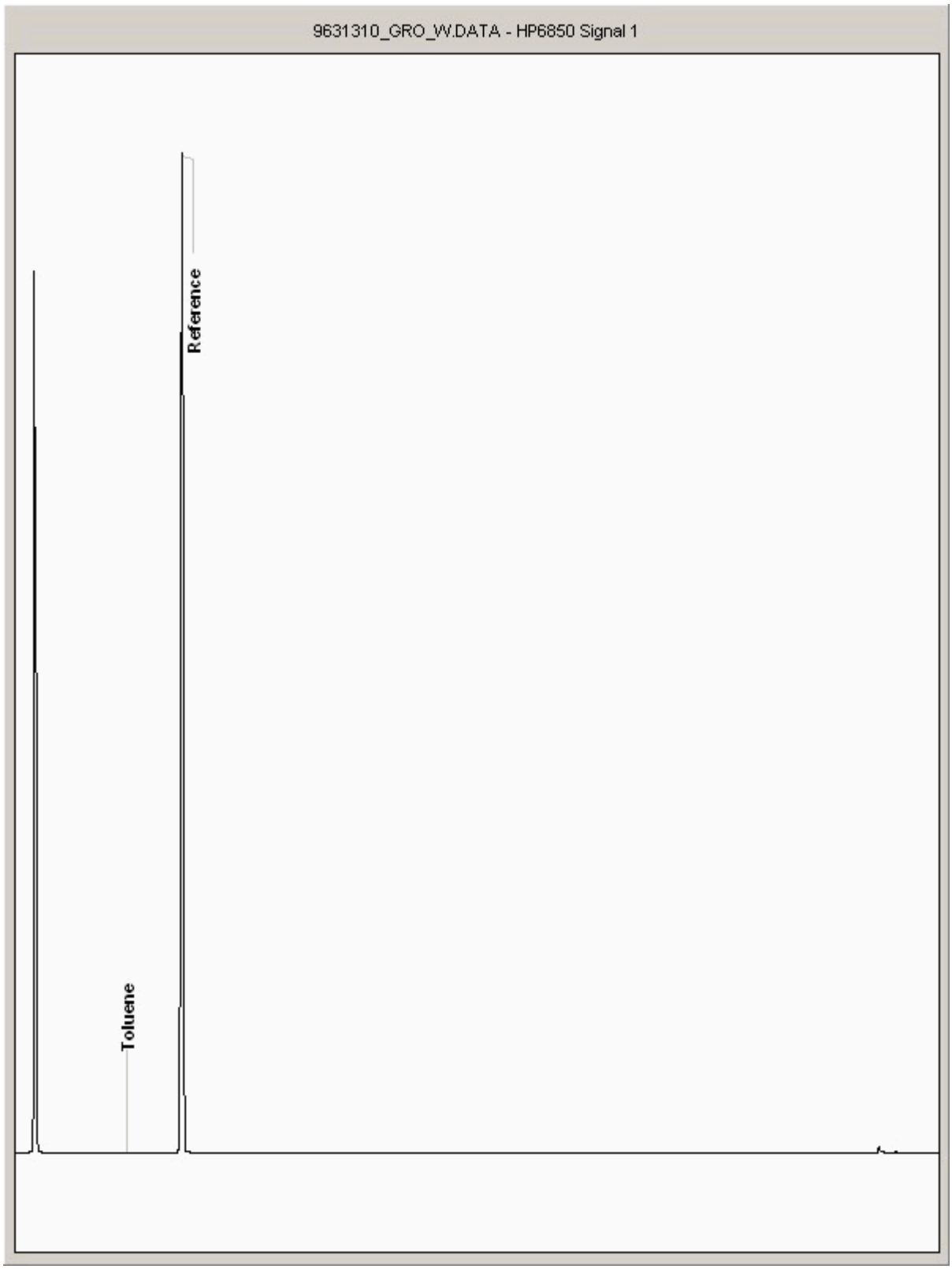
SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9631310
Sample ID : BH5/2

Depth :



CERTIFICATE OF ANALYSIS

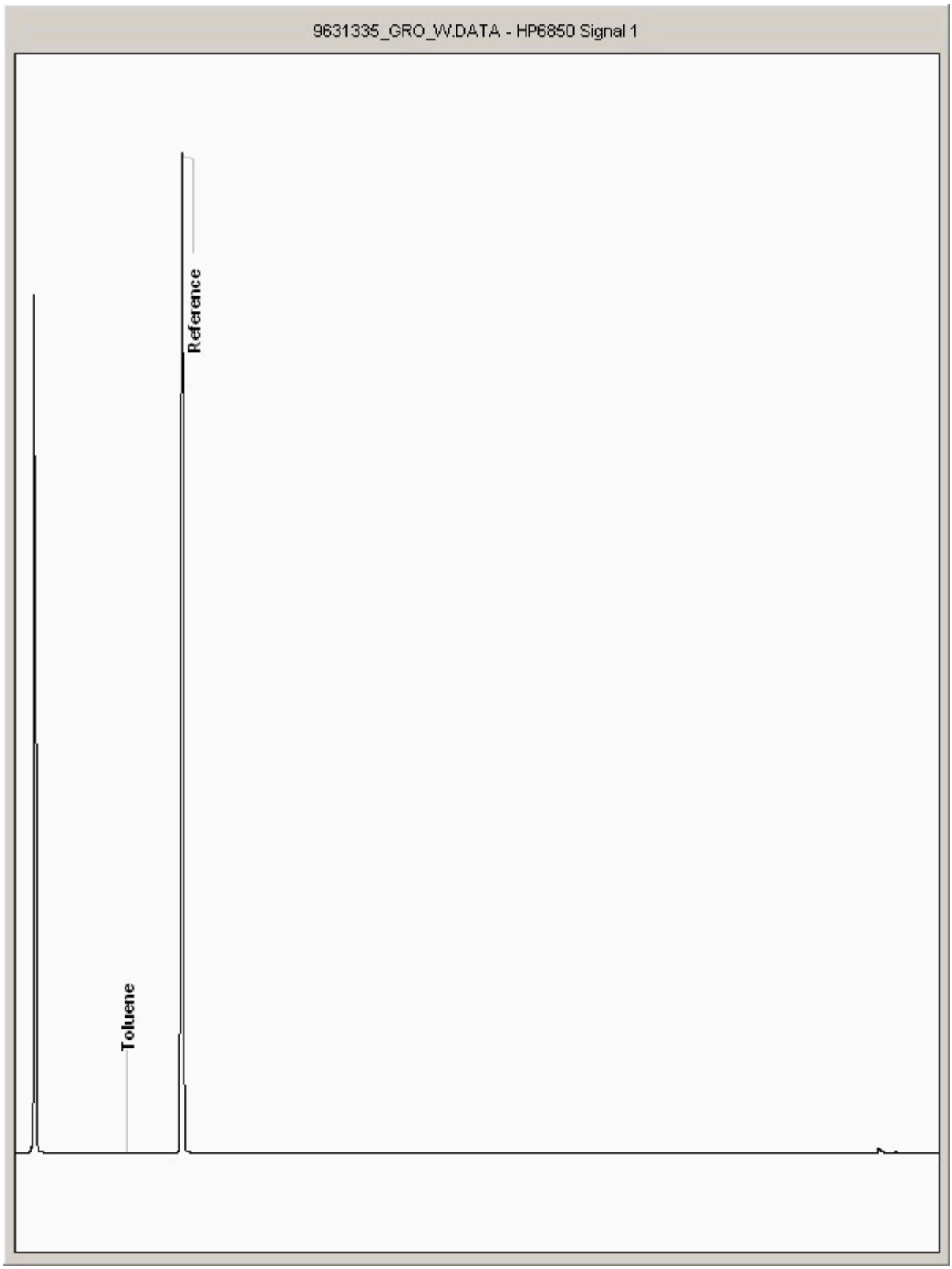
SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9631335
Sample ID : BH3/4

Depth :



CERTIFICATE OF ANALYSIS

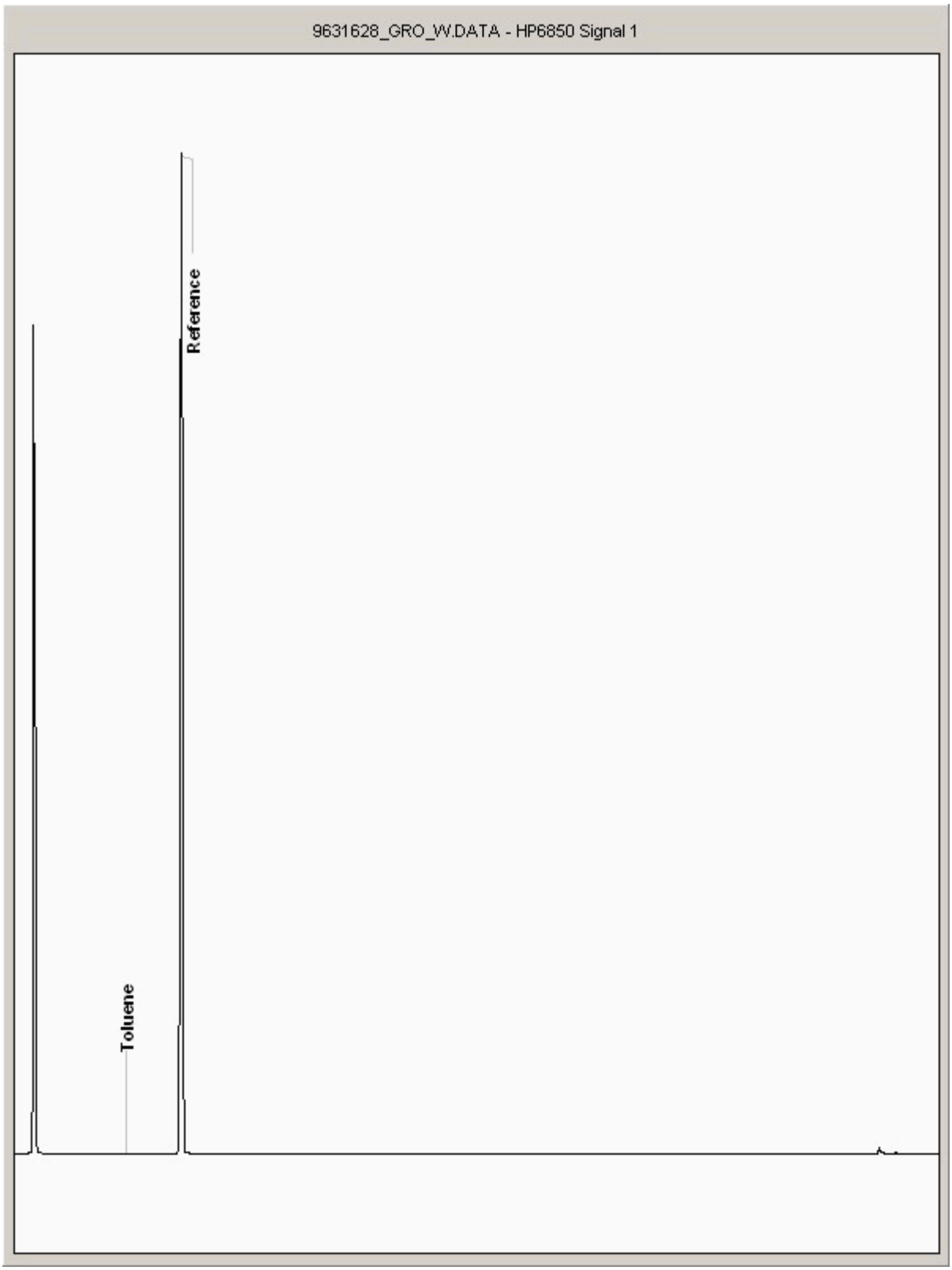
SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9631628
Sample ID : BH3/9

Depth :



CERTIFICATE OF ANALYSIS

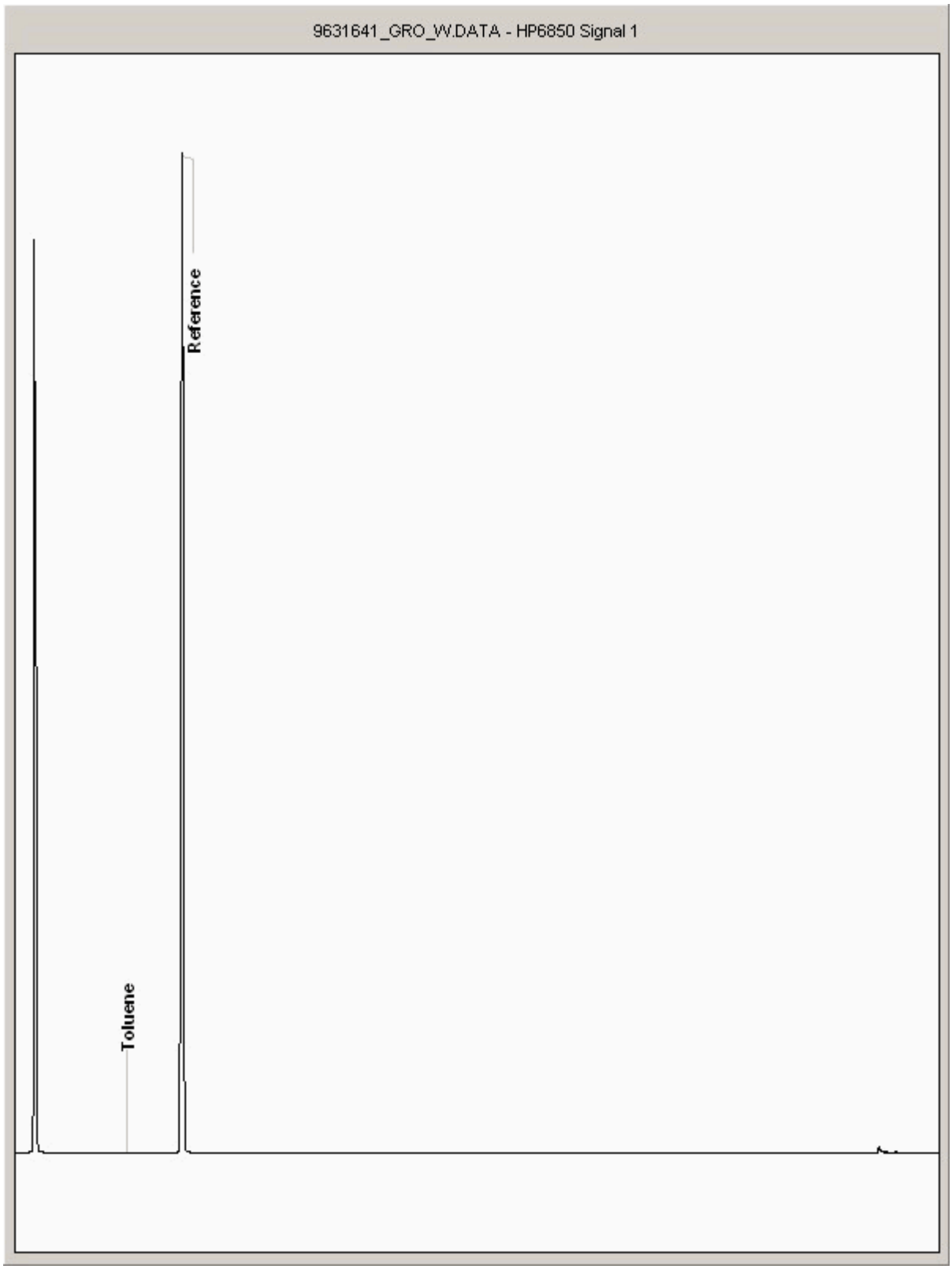
SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9631641
Sample ID : BH3/2

Depth :



CERTIFICATE OF ANALYSIS

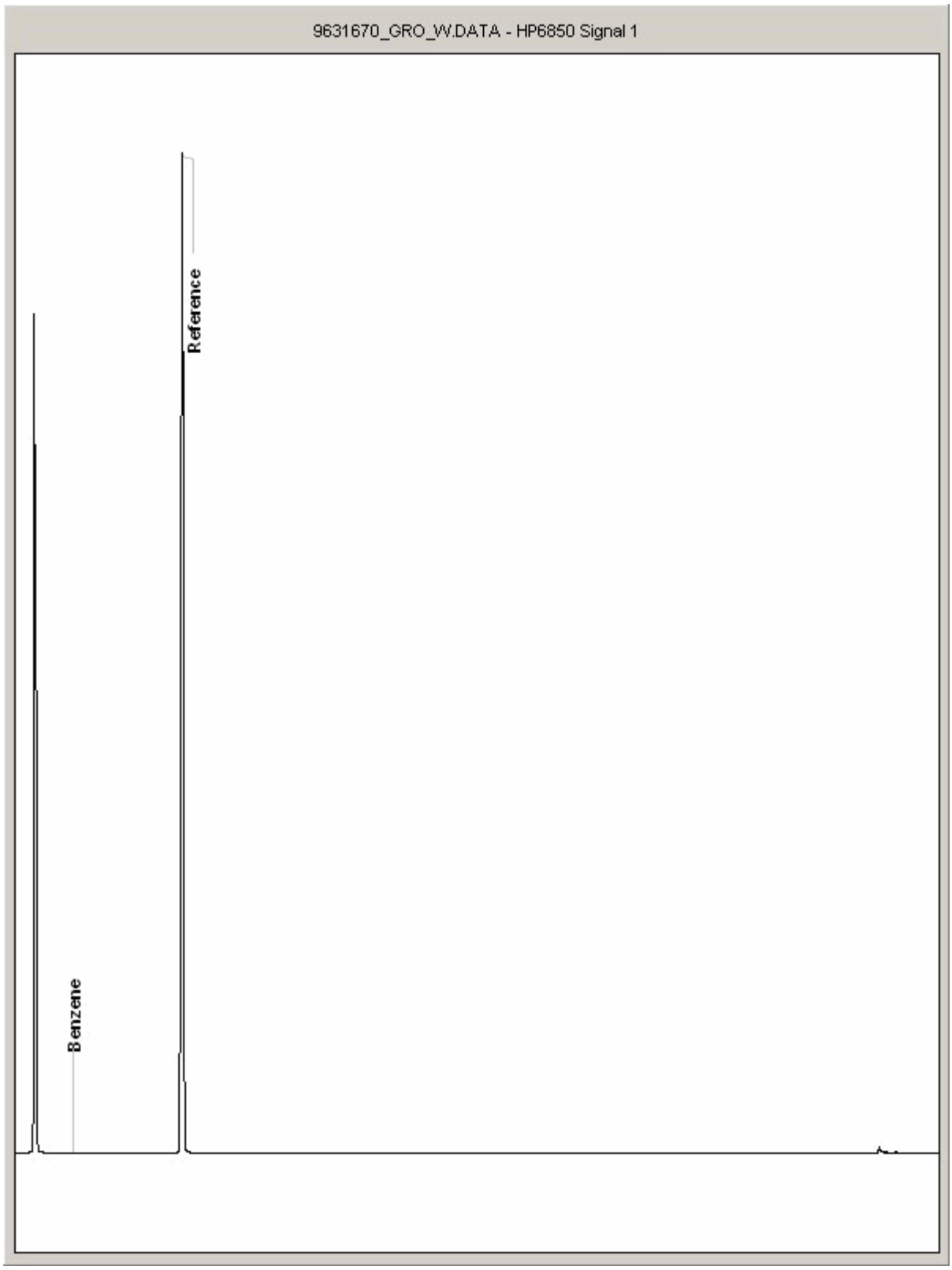
SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9631670
Sample ID : NACW203

Depth :



CERTIFICATE OF ANALYSIS

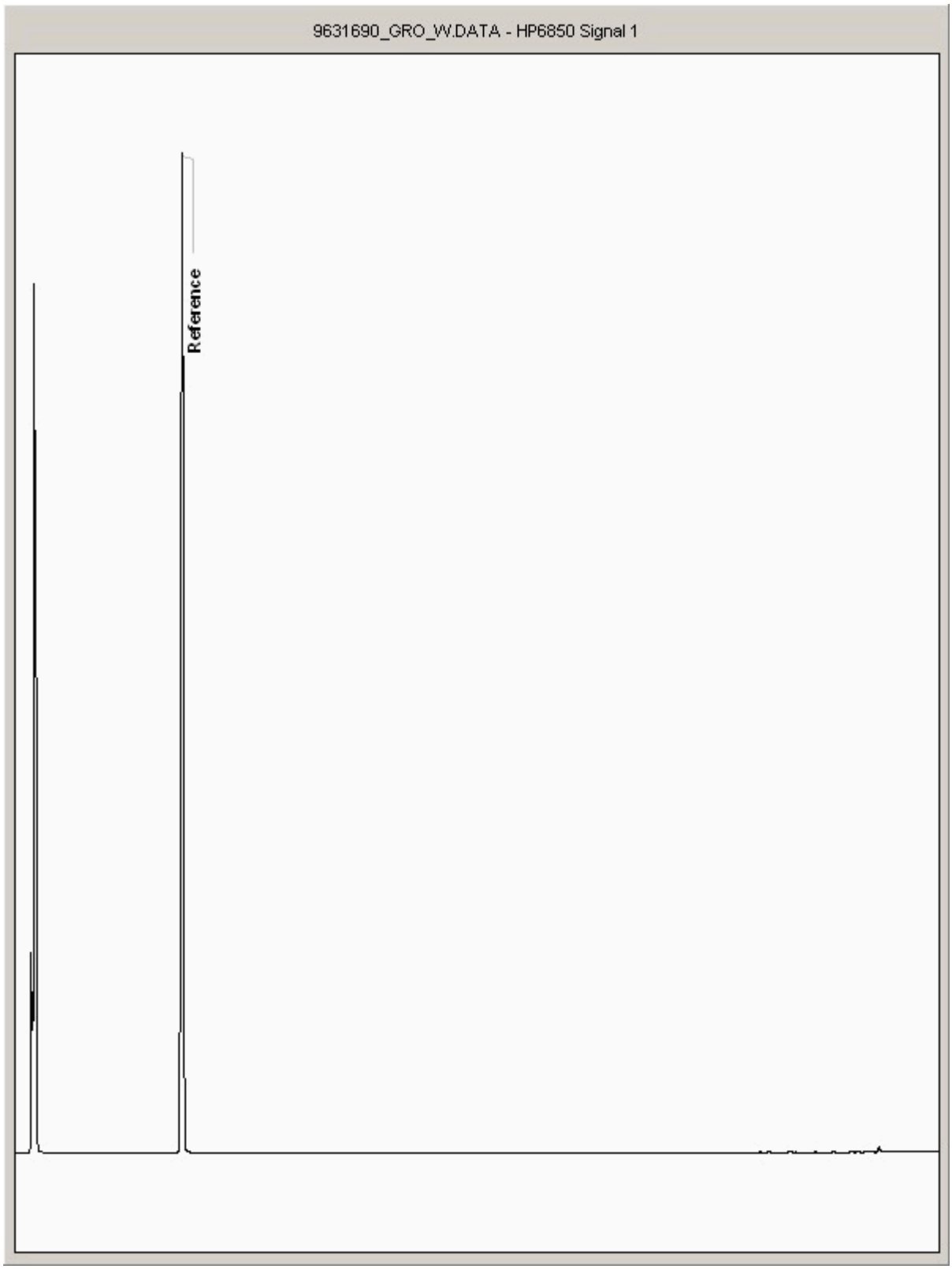
SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9631690
Sample ID : BH3/8

Depth :



CERTIFICATE OF ANALYSIS

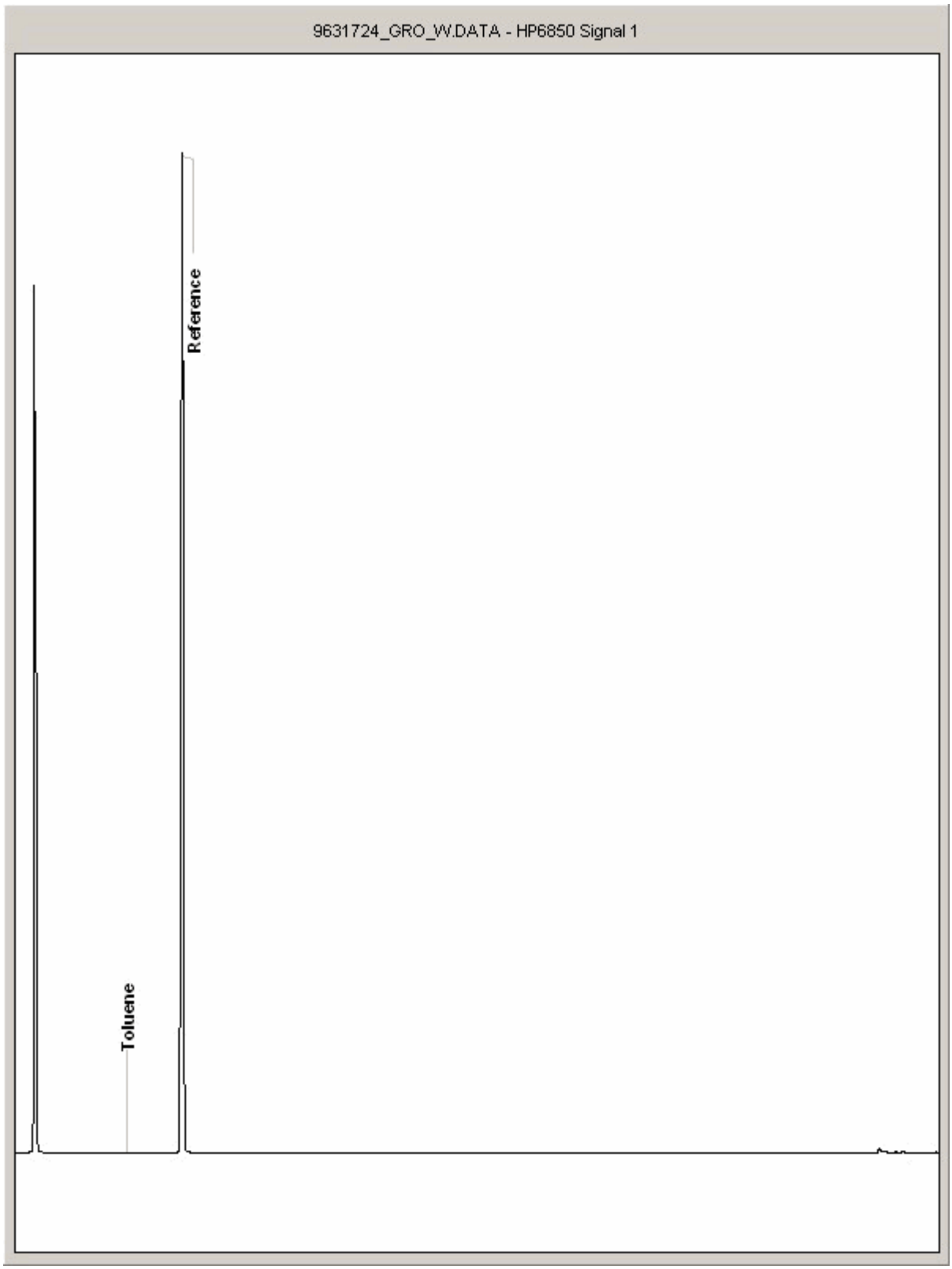
SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9631724
Sample ID : NACW212

Depth :



CERTIFICATE OF ANALYSIS

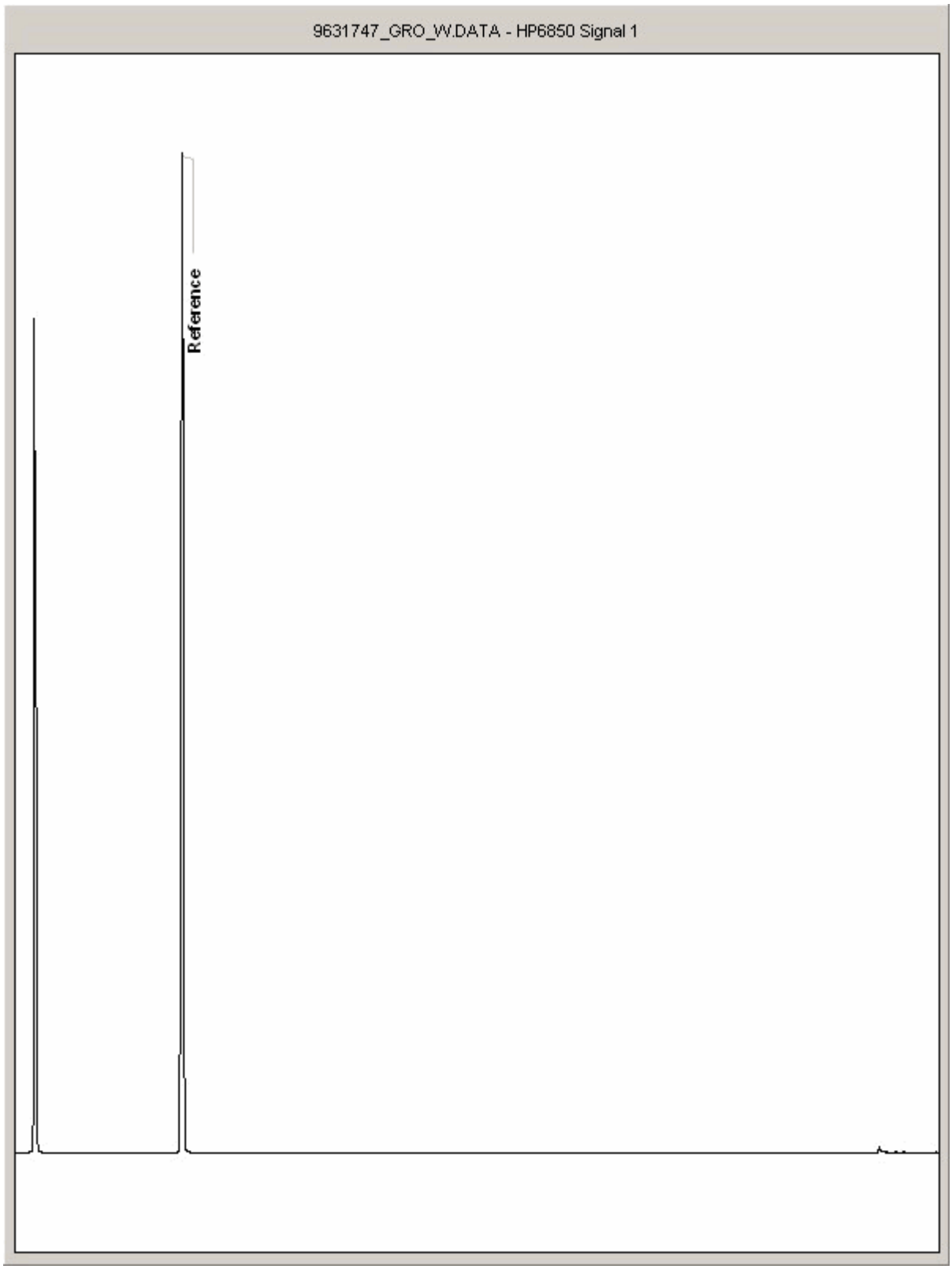
SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9631747
Sample ID : BH3/6

Depth :



CERTIFICATE OF ANALYSIS

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA Leach tests, flash point, ammonium as NH4 by the BRE method, VOC TICS, SVOC TICS, TOF-MS SCAN/SEARCH and TOF-MS TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for both soil jars, tubs and volatile jars. All waters and vials will be discarded 10 days after the analysis is completed (e-mailed). All material removed during an asbestos containing material screen and analysed for the presence of asbestos will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be screened in house for the presence of large asbestos containing material fragments/pieces. If no asbestos containing material is found this will be reported as 'no asbestos containing material detected'. If asbestos containing material is detected it will be removed and analysed by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If asbestos containing material is present no further analysis will be undertaken. At no point is the fibre content of the soil sample determined.

7. If no separate volatile sample is supplied by the client, the integrity of the data may be compromised if the laboratory is required to create a sub-sample from the bulk sample -similarly, if a headspace or sediment is present in the volatile sample. This will be flagged up as an invalid VOC on the test schedule or recorded on the log sheet.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. A table containing the date of analysis for each parameter is not routinely included with the report, but is available upon request.

12. Results relate only to the items tested

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 14).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. Our MCERTS accreditation for PAHs by GCMS applies to all product types apart from Kerosene, where naphthalene only is not
accredited.

19. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

20. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

21. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

22. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

23. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials -whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute themajor part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

24. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C4 -C10 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

SOLID MATRICES EXTRACTION SUMMARY

ANALYSIS	D/C OR WET	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
SOLVENT EXTRACTABLE MATTER	D&C	DCM	SOXTHERM	GRAVIMETRIC
CYCLOHEXANE EXT. MATTER	D&C	CYCLOHEXANE	SOXTHERM	GRAVIMETRIC
THIN LAYER CHROMATOGRAPHY	D&C	DCM	SOXTHERM	IATROSCAN
ELEMENTAL SULPHUR	D&C	DCM	SOXTHERM	HPLC
PHENOLS BY GCMS	WET	DCM	SOXTHERM	GCMS
HERBICIDES	D&C	HEXANE:ACETONE	SOXTHERM	GCMS
PESTICIDES	D&C	HEXANE:ACETONE	SOXTHERM	GCMS
EPH (DRO)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH (MIN OIL)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH (CLEANED UP)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH CWG BY GC	D&C	HEXANE:ACETONE	END OVER END	GC-FID
PCB TOT / PCB CON	D&C	HEXANE:ACETONE	END OVER END	GCMS
POLYAROMATIC HYDROCARBONS (MS)	WET	HEXANE:ACETONE	MICROWAVE TM218.	GCMS
C8-C40 (C8-C40) EZ FLASH	WET	HEXANE:ACETONE	SHAKER	GC-EZ
POLYAROMATIC HYDROCARBONS RAPID GC	WET	HEXANE:ACETONE	SHAKER	GC-EZ
SEMI VOLATILE ORGANIC COMPOUNDS	WET	DCM:ACETONE	SONICATE	GCMS

LIQUID MATRICES EXTRACTION SUMMARY

ANALYSIS	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
PAH MS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GCMS
EPH	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
EPH CWG	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
MINERAL OIL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
PCB 7 CONGENERS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GCMS
PCB TOTAL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GCMS
SVOC	DCM	LIQUID/LIQUID SHAKE	GCMS
FREE SULPHUR	DCM	SOLID PHASE EXTRACTION	HPLC
PEST OCP/OPP	DCM	LIQUID/LIQUID SHAKE	GCMS
TRIAZINE HERBS	DCM	LIQUID/LIQUID SHAKE	GCMS
PHENOLS MS	DCM	SOLID PHASE EXTRACTION	GCMS
TPH by INFRARED (IR)	TCE	LIQUID/LIQUID SHAKE	HPLC
MINERAL OIL by IR	TCE	LIQUID/LIQUID SHAKE	HPLC
GLYCOLS	NONE	DIRECT INJECTION	GCMS

Identification of Asbestos in Bulk Materials

The results for asbestos identification for soil samples are obtained from possible Asbestos Containing Material, removed during the 'Screening of soils for Asbestos Containing Materials', which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -
Trace -Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in MDHS 100.

The identification of asbestos containing materials falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Last Updated : 2010/09/08

SDG:	140710-17	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277355
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix
General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before presevation was performed
§	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -
Trace -Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

ALcontrol Laboratories

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CWM Environmental Ltd
Nantyclaws Landfill Site
Llanddarg Road
Carmarthen
Carmarthenshire
SA32 8BG

Attention: Mike Lewis

CERTIFICATE OF ANALYSIS

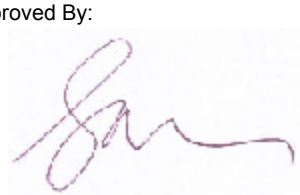
Date:	21 July 2014
Customer:	H_CWMENV_NAN
Sample Delivery Group (SDG):	140711-36
Your Reference:	
Location:	Phase 2-3
Report No:	277577

We received 18 samples on Friday July 11, 2014 and 18 of these samples were scheduled for analysis which was completed on Monday July 21, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:



Sonia McWhan

Operations Manager

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CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
9599377	LEACHATE HOLDING LAGOON			10/07/2014
9599378	NACW228			08/07/2014
9599380	NACW229			08/07/2014
9599374	5 SUMP			10/07/2014
9599375	6 SUMP			10/07/2014
9599376	7 SUMP			10/07/2014
9599371	1/2 SUMP			10/07/2014
9599373	3/4 SUMP			10/07/2014
9599359	SW201			10/07/2014
9599360	SW202			10/07/2014
9599361	SW204			10/07/2014
9599362	SW205			10/07/2014
9599363	SW206			10/07/2014
9599364	SW207			10/07/2014
9599365	UD1			10/07/2014
9599367	UD3			10/07/2014
9599368	UD4			10/07/2014
9599370	UD5			10/07/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)	9599377	9599378	9599380	9599374	9599375	9599376	9599371	9599373
Customer Sample Reference	LEACHATE HOLDING LAGOON	NACW228	NACW229	5 SUMP	6 SUMP	7 SUMP	1/2 SUMP	3/4 SUMP
AGS Reference								
Depth (m)								
Container	1l Glass bottle (ALE)	1lplastic (ALE221)	250ml BOD (ALE21)	H2SO4 (ALE244)	Vial (ALE297)	1l Glass bottle (ALE)	1lplastic (ALE221)	H2SO4 (ALE244)	INV VIAL	NaOH (ALE245)	1l Glass bottle (ALE)	1lplastic (ALE221)	H2SO4 (ALE244)	INV VIAL	NaOH (ALE245)	1l Glass bottle (ALE)	1lplastic (ALE221)	250ml BOD (ALE21)	H2SO4 (ALE244)	Vial (ALE297)	1l Glass bottle (ALE)	1lplastic (ALE221)	250ml BOD (ALE21)	H2SO4 (ALE244)	Vial (ALE297)	1l Glass bottle (ALE)	1lplastic (ALE221)	250ml BOD (ALE21)	H2SO4 (ALE244)	Vial (ALE297)	1l Glass bottle (ALE)	1lplastic (ALE221)	250ml BOD (ALE21)	H2SO4 (ALE244)	Vial (ALE297)	1l Glass bottle (ALE)	1lplastic (ALE221)	250ml BOD (ALE21)	H2SO4 (ALE244)	Vial (ALE297)

Acid Herbicides by LCQQQ (aq)	All	NDPs: 0 Tests: 18	X					X					X					X					X					X					X					X				
Alkalinity as CaCO3	All	NDPs: 0 Tests: 18		X					X					X					X					X					X					X					X			
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 18				X				X					X					X					X					X					X					X		
Anions by Kone (w)	All	NDPs: 0 Tests: 18		X					X					X					X					X					X					X					X			
BOD True Total	All	NDPs: 0 Tests: 6			X											X					X					X					X					X					
COD Unfiltered	All	NDPs: 0 Tests: 6			X											X					X					X					X					X					
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 18		X					X					X					X					X					X					X					X			
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 18		X					X					X					X					X					X					X					X			
EPH (DRO) (C10-C40) Aqueous (W)	All	NDPs: 0 Tests: 18	X					X					X					X					X					X					X					X				
GRO by GC-FID (W)	All	NDPs: 0 Tests: 18				X				X					X					X					X					X					X					X	
Metals by iCap-OES Dissolved (W)	All	NDPs: 0 Tests: 18		X					X					X					X					X					X					X					X			
Nitrite by Kone (w)	All	NDPs: 0 Tests: 12									X						X																										
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 18	X					X					X					X					X					X					X					X				
Total EPH (aq)	All	NDPs: 0 Tests: 18	X					X					X					X					X					X					X					X				
Total Organic and Inorganic Carbon	All	NDPs: 0 Tests: 12	X					X					X					X					X					X					X					X				

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
VOC MS (W)	All	NDPs: 0 Tests: 18	9599377	LEACHATE HOLDING LAGOON			1l Glass bottle (ALE
							1lplastic (ALE221)
							250ml BOD (ALE21
							H2SO4 (ALE244)
							Vial (ALE297) X
			9599378	NACW228			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							INV VIAL X
			9599380	NACW229			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							INV VIAL
							NaOH (ALE245) X
			9599374	5 SUMP			1l Glass bottle (ALE
							1lplastic (ALE221)
							250ml BOD (ALE21
							H2SO4 (ALE244)
							Vial (ALE297) X
			9599375	6 SUMP			1l Glass bottle (ALE
							1lplastic (ALE221)
							250ml BOD (ALE21
							H2SO4 (ALE244)
							Vial (ALE297) X
			9599376	7 SUMP			1l Glass bottle (ALE
							1lplastic (ALE221)
							250ml BOD (ALE21
							H2SO4 (ALE244)
							Vial (ALE297) X
			9599371	1/2 SUMP			1l Glass bottle (ALE
							1lplastic (ALE221)
							250ml BOD (ALE21
							H2SO4 (ALE244)
							Vial (ALE297) X
			9599373	3/4 SUMP			1l Glass bottle (ALE
							1lplastic (ALE221)
							250ml BOD (ALE21
							H2SO4 (ALE244)
							Vial (ALE297) X

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)			9599359	9599360	9599361	9599362	9599363	9599364	9599365	9599367
Customer Sample Reference			SW201	SW202	SW204	SW205	SW206	SW207	UD1	UD3
AGS Reference										
Depth (m)										
Container			1l Glass bottle (ALE)	1lplastic (ALE221)	H2SO4 (ALE244)	INV VIAL	NaOH (ALE245)
Acid Herbicides by LCQQQ (aq)	All	NDPs: 0 Tests: 18	X				X			X			X			X			X			X			X		
Alkalinity as CaCO3	All	NDPs: 0 Tests: 18		X			X			X			X			X			X			X			X		
Alkalinity Filtered as CaCO3	All	NDPs: 0 Tests: 6		X			X			X			X			X											
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 18			X			X			X			X			X			X			X			X	
Anions by Kone (w)	All	NDPs: 0 Tests: 18		X			X			X			X			X			X			X			X		
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 18		X			X			X			X			X			X			X			X		
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 18		X			X			X			X			X			X			X			X		
EPH (DRO) (C10-C40) Aqueous (W)	All	NDPs: 0 Tests: 18	X				X			X			X			X			X			X			X		
GRO by GC-FID (W)	All	NDPs: 0 Tests: 18			X			X			X			X			X			X			X			X	
Ionic Balance	All	NDPs: 0 Tests: 6		X			X			X			X			X											
Metals by iCap-OES Dissolved (W)	All	NDPs: 0 Tests: 18		X			X			X			X			X			X			X			X		
Nitrite by Kone (w)	All	NDPs: 0 Tests: 12			X			X			X			X			X			X			X			X	
pH Value	All	NDPs: 0 Tests: 6		X			X			X			X			X											
Suspended Solids	All	NDPs: 0 Tests: 6		X			X			X			X			X											
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 18	X				X			X			X			X			X			X			X		

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
Total EPH (aq)	All	NDPs: 0 Tests: 18	9599359	SW201			1l Glass bottle (ALE)
			9599360	SW202			1l Glass bottle (ALE)
			9599361	SW204			1l Glass bottle (ALE)
			9599362	SW205			1l Glass bottle (ALE)
			9599363	SW206			1l Glass bottle (ALE)
			9599364	SW207			1l Glass bottle (ALE)
			9599365	UD1			1l Glass bottle (ALE)
			9599367	UD3			1l Glass bottle (ALE)
Total Organic and Inorganic Carbon	All	NDPs: 0 Tests: 12	9599359	SW201			1l Glass bottle (ALE)
			9599360	SW202			1l Glass bottle (ALE)
			9599361	SW204			1l Glass bottle (ALE)
			9599362	SW205			1l Glass bottle (ALE)
			9599363	SW206			1l Glass bottle (ALE)
			9599364	SW207			1l Glass bottle (ALE)
			9599365	UD1			1l Glass bottle (ALE)
			9599367	UD3			1l Glass bottle (ALE)
VOC MS (W)	All	NDPs: 0 Tests: 18	9599359	SW201			1plastic (ALE221)
			9599360	SW202			1plastic (ALE221)
			9599361	SW204			1plastic (ALE221)
			9599362	SW205			1plastic (ALE221)
			9599363	SW206			1plastic (ALE221)
			9599364	SW207			1plastic (ALE221)
			9599365	UD1			1plastic (ALE221)
			9599367	UD3			1plastic (ALE221)
			9599359	SW201			H2SO4 (ALE244)
			9599360	SW202			H2SO4 (ALE244)
			9599361	SW204			H2SO4 (ALE244)
			9599362	SW205			H2SO4 (ALE244)
			9599363	SW206			H2SO4 (ALE244)
			9599364	SW207			H2SO4 (ALE244)
			9599365	UD1			H2SO4 (ALE244)
			9599367	UD3			H2SO4 (ALE244)
			9599359	SW201			INV VIAL
			9599360	SW202			INV VIAL
			9599361	SW204			INV VIAL
			9599362	SW205			INV VIAL
			9599363	SW206			INV VIAL
			9599364	SW207			INV VIAL
			9599365	UD1			INV VIAL
			9599367	UD3			INV VIAL
			9599359	SW201			NaOH (ALE245)
			9599360	SW202			NaOH (ALE245)
			9599361	SW204			NaOH (ALE245)
			9599362	SW205			NaOH (ALE245)
			9599363	SW206			NaOH (ALE245)
			9599364	SW207			NaOH (ALE245)
			9599365	UD1			NaOH (ALE245)
			9599367	UD3			NaOH (ALE245)

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)									
								9599368				9599370
			Customer Sample Reference					UD4				UD5
			AGS Reference									
			Depth (m)									
			Container	1l Glass bottle (ALE	1lplastic (ALE221)	H2SO4 (ALE244)	INV VIAL	NaOH (ALE245)	1l Glass bottle (ALE	1lplastic (ALE221)	H2SO4 (ALE244)	INV VIAL	NaOH (ALE245)
Acid Herbicides by LCQQQ (aq)	All	NDPs: 0 Tests: 18		X					X				
Alkalinity as CaCO3	All	NDPs: 0 Tests: 18			X					X			
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 18				X					X		
Anions by Kone (w)	All	NDPs: 0 Tests: 18			X					X			
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 18			X					X			
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 18			X					X			
EPH (DRO) (C10-C40) Aqueous (W)	All	NDPs: 0 Tests: 18		X					X				
GRO by GC-FID (W)	All	NDPs: 0 Tests: 18					X					X	
Metals by iCap-OES Dissolved (W)	All	NDPs: 0 Tests: 18			X					X			
Nitrite by Kone (w)	All	NDPs: 0 Tests: 12						X					X
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 18		X					X				
Total EPH (aq)	All	NDPs: 0 Tests: 18		X					X				
VOC MS (W)	All	NDPs: 0 Tests: 18					X					X	

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	LEACHATE HOLDING LAGOON	NACW228	NACW229	5 SUMP	6 SUMP	7 SUMP
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	08/07/2014	08/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599377	9599378	9599380	9599374	9599375	9599376
			AGS Reference						
Alkalinity, Total as CaCO3	<2 mg/l	TM043		7920 #	160 #	75 #	6920 #	7880 #	7340 #
BOD, unfiltered	<1 mg/l	TM045		225 #			328 #	240 #	131 #
Organic Carbon, Total	<3 mg/l	TM090		43 #			676 #	1010 #	1220 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		1540 #	0.243 #	<0.2 #	1650 #	1490 #	1450 #
COD, unfiltered	<7 mg/l	TM107		3170 #			2690 #	3290 #	3490 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		19.5 #	0.344 #	0.202 #	24.8 #	19.3 #	19.2 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		0.321 #	<0.1 #	<0.1 #	0.279 #	0.272 #	<1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		343 #	1.34 #	0.705 #	139 #	335 #	722 #
Copper (diss.filt)	<0.85 µg/l	TM152		7.91 #	<0.85 #	1.33 #	5.57 #	9.16 #	99.2 #
Lead (diss.filt)	<0.02 µg/l	TM152		3.21 #	<0.02 #	<0.02 #	1.44 #	3.89 #	34.5 #
Manganese (diss.filt)	<0.04 µg/l	TM152		744 #	0.278 #	0.193 #	832 #	744 #	661 #
Nickel (diss.filt)	<0.15 µg/l	TM152		204 #	0.915 #	0.682 #	164 #	205 #	276 #
Zinc (diss.filt)	<0.41 µg/l	TM152		95.7 #	<0.41 #	0.575 #	38.5 #	117 #	550 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		3860 #	<46 #	<46 #	3150 #	3670 #	3220 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		4030	<100	<100	3330	3820	3220
Nitrite as NO2	<0.05 mg/l	TM184			<0.05 #	<0.05 #			
Sulphate	<2 mg/l	TM184		<40 #	18.7 #	18 #	<40 #	<40 #	<40 #
Chloride	<2 mg/l	TM184		3320 #	20.1 #	15.3 #	6470 #	3420 #	3320 #
Nitrate as NO3	<0.3 mg/l	TM184			4.72 #	3.18 #			
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		<2 #	1.07 #	0.722 #	<2 #	<2 #	99.5 #
Calcium (diss.filt)	<0.012 mg/l	TM228		114 #	54.9 #	29.5 #	126 #	119 #	129 #
Sodium (diss.filt)	<0.076 mg/l	TM228		2510 #	10.6 #	7.72 #	3050 #	2490 #	2440 #
Magnesium (diss.filt)	<0.036 mg/l	TM228		89.9 #	6.21 #	3.47 #	100 #	93.5 #	81.2 #
Potassium (diss.filt)	<1 mg/l	TM228		1260 #	<1 #	1.19 #	1890 #	1290 #	1390 #
Iron (diss.filt)	<0.019 mg/l	TM228		4.74 #	<0.019 #	<0.019 #	8.06 #	4.71 #	8.38 #
MCPP (Mecoprop)	<0.04 µg/l	TM324		50.7	<0.04	<0.04	25.6	50.3	43

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	1/2 SUMP	3/4 SUMP	SW201	SW202	SW204	SW205
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599371	9599373	9599359	9599360	9599361	9599362
			AGS Reference						
Ionic balance	% Diff	Calulation				-4.08	13.3	-5.66	-4.76
Suspended solids, Total	<2 mg/l	TM022				4 #	754 #	6 #	2 #
Alkalinity, Total as CaCO3	<2 mg/l	TM043		6020 #	7680 #	55 #	175 #	85 #	175 #
Alkalinity,Total as CaCO3 (diss.filt)	<2 mg/l	TM043				55	70	90	175
Alkalinity, Bicarbonate as CaCO3 (diss.filt)	<2 mg/l	TM043				55	70	90	175
BOD, unfiltered	<1 mg/l	TM045		182 #	245 #				
Organic Carbon, Total	<3 mg/l	TM090		890 #	1110 #	4.71 #	<3 #	4.09 #	<3 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		1180 #	1360 #	0.266 #	0.3 #	<0.2 #	0.699 #
COD, unfiltered	<7 mg/l	TM107		2650 #	3140 #				
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		15.2 #	19.1 #	0.168 #	0.295 #	0.274 #	0.383 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		78.5 #	129 #	0.717 #	0.982 #	0.813 #	1.06 #
Copper (diss.filt)	<0.85 µg/l	TM152		3.03 #	2.73 #	4.56 #	1.18 #	4.73 #	2.54 #
Lead (diss.filt)	<0.02 µg/l	TM152		1.05 #	0.938 #	0.11 #	0.028 #	0.104 #	0.06 #
Manganese (diss.filt)	<0.04 µg/l	TM152		167 #	292 #	0.949 #	51.2 #	14.4 #	122 #
Nickel (diss.filt)	<0.15 µg/l	TM152		48.2 #	80.1 #	1.27 #	0.827 #	1.17 #	1.39 #
Zinc (diss.filt)	<0.41 µg/l	TM152		36.4 #	57.8 #	40.2 #	1.04 #	4.06 #	5.82 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		2920 #	3480 #	<46 #	96.8 #	<46 #	<46 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		3040	3630	<100	<100	<100	<100
Nitrite as NO2	<0.05 mg/l	TM184				<0.05 #	<0.05 #	<0.05 #	<0.05 #
Sulphate	<2 mg/l	TM184		<40 #	<40 #	3.2 #	18.3 #	25.6 #	18.2 #
Chloride	<2 mg/l	TM184		2690 #	3370 #	18 #	19.4 #	25.2 #	22.2 #
Nitrate as NO3	<0.3 mg/l	TM184				1.67 #	4.31 #	3.01 #	5.16 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		<2 #	<2 #	0.381 #	0.982 #	0.687 #	1.18 #
Calcium (diss.filt)	<0.012 mg/l	TM228		96.2 #	117 #	16.5 #	44.1 #	33.3 #	59.8 #
Sodium (diss.filt)	<0.076 mg/l	TM228		1910 #	2440 #	9.99 #	10.1 #	12.7 #	12 #
Magnesium (diss.filt)	<0.036 mg/l	TM228		72 #	91 #	1.9 #	4.94 #	4.79 #	6.06 #
Potassium (diss.filt)	<1 mg/l	TM228		989 #	1300 #	5.32 #	2.67 #	5.95 #	4.51 #
Iron (diss.filt)	<0.019 mg/l	TM228		3.78 #	3.91 #	0.0814 #	<0.019 #	0.0268 #	0.0282 #
pH	<1 pH Units	TM256				7.79 #	8.14 #	8.05 #	8.31 #
MCPP (Mecoprop)	<0.04 µg/l	TM324		42.5	51.8	<0.04	<0.04	<0.04	<0.04

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW206	SW207	UD1	UD3	UD4	UD5
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599363	9599364	9599365	9599367	9599368	9599370
			AGS Reference						
Ionic balance	% Diff	Calulation		-4.66	-19.6				
Suspended solids, Total	<2 mg/l	TM022		4.5 #	9.5 #				
Alkalinity, Total as CaCO3	<2 mg/l	TM043		60 #	100 #	165 #	115 #	195 #	145 #
Alkalinity,Total as CaCO3 (diss.filt)	<2 mg/l	TM043		60	155				
Alkalinity, Bicarbonate as CaCO3 (diss.filt)	<2 mg/l	TM043		60	155				
Organic Carbon, Total	<3 mg/l	TM090		6.31 #	5.79 #				
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.159 #	0.3 #	0.275 #	0.233 #	0.422 #	0.268 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		0.561 #	0.927 #	0.958 #	1.15 #	1.18 #	1.44 #
Copper (diss.filt)	<0.85 µg/l	TM152		<0.85 #	4.1 #	<0.85 #	2.64 #	0.952 #	<0.85 #
Lead (diss.filt)	<0.02 µg/l	TM152		<0.02 #	0.14 #	<0.02 #	<0.02 #	<0.02 #	<0.02 #
Manganese (diss.filt)	<0.04 µg/l	TM152		1.01 #	16.5 #	0.15 #	35 #	74.6 #	24.5 #
Nickel (diss.filt)	<0.15 µg/l	TM152		0.661 #	1.58 #	0.815 #	0.954 #	1.23 #	0.885 #
Zinc (diss.filt)	<0.41 µg/l	TM152		40.3 #	3.62 #	<0.41 #	5.4 #	1.25 #	1.64 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		<46 #	<46 #	<46 #	<46 #	147 #	<46 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		<100	<100	<100	<100	147	<100
Nitrite as NO2	<0.05 mg/l	TM184		<0.05 #	0.051 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #
Sulphate	<2 mg/l	TM184		<2 #	28.7 #	16.7 #	7.5 #	19.6 #	<2 #
Chloride	<2 mg/l	TM184		19.5 #	29.4 #	16.2 #	10.5 #	25.2 #	9.4 #
Nitrate as NO3	<0.3 mg/l	TM184		<0.3 #	1.51 #	4.5 #	2.37 #	6.08 #	2.5 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		<0.1 #	0.357 #	1.02 #	0.538 #	1.38 #	0.569 #
Calcium (diss.filt)	<0.012 mg/l	TM228		15.7 #	36.1 #	43.9 #	40.1 #	69.1 #	51 #
Sodium (diss.filt)	<0.076 mg/l	TM228		11.4 #	14.3 #	8.64 #	5.96 #	14.9 #	6.36 #
Magnesium (diss.filt)	<0.036 mg/l	TM228		1.77 #	5.44 #	4.83 #	2.91 #	7.97 #	3.41 #
Potassium (diss.filt)	<1 mg/l	TM228		6.65 #	7.39 #	1.22 #	<1 #	5.22 #	<1 #
Iron (diss.filt)	<0.019 mg/l	TM228		0.154 #	0.0324 #	<0.019 #	<0.019 #	<0.019 #	<0.019 #
pH	<1 pH Units	TM256		7.58 #	7.83 #				
MCPP (Mecoprop)	<0.04 µg/l	TM324		<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	LEACHATE HOLDING LAGOON	NACW228	NACW229	5 SUMP	6 SUMP	7 SUMP
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	08/07/2014	08/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599377	9599378	9599380	9599374	9599375	9599376
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 1 #	<3 1 #	<3 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		<7 #	<7 1 #	<7 1 #	<7 #	<7 #	<7 #
Toluene	<4 µg/l	TM245		6 #	<4 1 #	<4 1 #	<4 #	5 #	5 #
Ethylbenzene	<5 µg/l	TM245		7 #	<5 1 #	<5 1 #	10 #	7 #	<5 #
m,p-Xylene	<8 µg/l	TM245		11 #	<8 1 #	<8 1 #	9 #	10 #	<8 #
o-Xylene	<3 µg/l	TM245		6 #	<3 1 #	<3 1 #	6 #	6 #	<3 #
Sum of detected BTEX	<28 µg/l	TM245		30	<28 1	<28 1	<28	28	<28
EPH (C6-C10)	<100 µg/l	TM245		172	<100 1	<100 1	177	151	<100

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
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tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	1/2 SUMP	3/4 SUMP	SW201	SW202	SW204	SW205
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599371	9599373	9599359	9599360	9599361	9599362
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #
Benzene	<7 µg/l	TM245		<7 #	<7 #	<7 1 #	<7 1 #	<7 1 #	<7 1 #
Toluene	<4 µg/l	TM245		4 #	5 #	<4 1 #	<4 1 #	<4 1 #	<4 1 #
Ethylbenzene	<5 µg/l	TM245		5 #	7 #	<5 1 #	<5 1 #	<5 1 #	<5 1 #
m,p-Xylene	<8 µg/l	TM245		8 #	10 #	<8 1 #	<8 1 #	<8 1 #	<8 1 #
o-Xylene	<3 µg/l	TM245		4 #	5 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	<28 1	<28 1	<28 1	<28 1
EPH (C6-C10)	<100 µg/l	TM245		121	147	<100 1	<100 1	<100 1	<100 1

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW206	SW207	UD1	UD3	UD4	UD5
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599363	9599364	9599365	9599367	9599368	9599370
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 1 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #
Benzene	<7 µg/l	TM245		<7 1 #	<7 1 #	<7 1 #	<7 1 #	<7 1 #	<7 1 #
Toluene	<4 µg/l	TM245		<4 1 #	<4 1 #	<4 1 #	<4 1 #	<4 1 #	<4 1 #
Ethylbenzene	<5 µg/l	TM245		<5 1 #	<5 1 #	<5 1 #	<5 1 #	<5 1 #	<5 1 #
m,p-Xylene	<8 µg/l	TM245		<8 1 #	<8 1 #	<8 1 #	<8 1 #	<8 1 #	<8 1 #
o-Xylene	<3 µg/l	TM245		<3 1 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #
Sum of detected BTEX	<28 µg/l	TM245		<28 1	<28 1	<28 1	<28 1	<28 1	<28 1
EPH (C6-C10)	<100 µg/l	TM245		<100 1	<100 1	<100 1	<100 1	<100 1	<100 1

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	LEACHATE HOLDING LAGOON	NACW228	NACW229	5 SUMP	6 SUMP	7 SUMP
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	08/07/2014	08/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599377	9599378	9599380	9599374	9599375	9599376
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<2	<1	<1	<8	<8	<5
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
2-Methylphenol (aq)	<1 µg/l	TM176		4.99 #	<1 #	<1 #	<8 #	9.59 #	<5 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<2	<1	<1	<8	<8	<5
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
4-Methylphenol (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<2	<1	<1	<8	<8	<5
Azobenzene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Acenaphthylene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Acenaphthene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Anthracene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		14.3 #	<2 #	<2 #	18.3 #	41.2 #	20.8 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	LEACHATE HOLDING LAGOON	NACW228	NACW229	5 SUMP	6 SUMP	7 SUMP
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	08/07/2014	08/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599377	9599378	9599380	9599374	9599375	9599376
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Carbazole (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Chrysene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Dibenzofuran (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<10 #	<5 #	<5 #	<40 #	<40 #	<25 #
Fluoranthene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Fluorene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<2	<1	<1	<8	<8	<5
Phenol (aq)	<1 µg/l	TM176		4.07	<1	<1	<8	<8	<5
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Hexachloroethane (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Nitrobenzene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Naphthalene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Isophorone (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<2	<1	<1	<8	<8	<5
Phenanthrene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Pyrene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	1/2 SUMP	3/4 SUMP	SW201	SW202	SW204	SW205
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599371	9599373	9599359	9599360	9599361	9599362
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<8	<8	<1	<1	<1	<1
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		10.1 #	14.5 #	<1 #	<1 #	<1 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<8	<8	<1	<1	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<8	<8	<1	<1	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Acenaphthene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Anthracene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		40.5 #	46.2 #	<2 #	<2 #	<2 #	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	1/2 SUMP	3/4 SUMP	SW201	SW202	SW204	SW205
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599371	9599373	9599359	9599360	9599361	9599362
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Carbazole (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Chrysene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<40 #	<40 #	<5 #	<5 #	<5 #	<5 #
Fluoranthene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Fluorene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<8	<8	<1	<1	<1	<1
Phenol (aq)	<1 µg/l	TM176		<8	<8	<1	<1	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Naphthalene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Isophorone (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<8	<8	<1	<1	<1	<1
Phenanthrene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Pyrene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW206	SW207	UD1	UD3	UD4	UD5
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599363	9599364	9599365	9599367	9599368	9599370
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW206	SW207	UD1	UD3	UD4	UD5
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599363	9599364	9599365	9599367	9599368	9599370
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbazole (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chrysene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Fluorene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isophorone (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenanthrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	LEACHATE HOLDING LAGOON	NACW228	NACW229	5 SUMP	6 SUMP	7 SUMP
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	08/07/2014	08/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599377	9599378	9599380	9599374	9599375	9599376
			AGS Reference						
Dibromofluoromethane**	%	TM208		101	111 1	114 1	105	103	101
Toluene-d8**	%	TM208		99.5	98.4 1	102 1	99.6	98.8	98.2
4-Bromofluorobenzene**	%	TM208		94.5	95.3 1	101 1	96.3	90.5	92.7
Dichlorodifluoromethane	<1 µg/l	TM208		<1	<1 1	<1 1	<1	<1	<1
Chloromethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	2.21 #	<1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 1 #	<3 1 #	<3 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1 1	<1 1	<1	<1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	4.6 1 #	7.06 1 #	<1 #	<1 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1 1	<1 1	<1	<1	<1
Benzene	<1 µg/l	TM208		1.75 #	<1 1 #	<1 1 #	3.08 #	1.8 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	4.18 1 #	6.46 1 #	<1 #	<1 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		6.33 #	<1 1 #	<1 1 #	3.39 #	6.16 #	5.69 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	LEACHATE HOLDING LAGOON	NACW228	NACW229	5 SUMP	6 SUMP	7 SUMP
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	08/07/2014	08/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599377	9599378	9599380	9599374	9599375	9599376
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	2.94 1 #	4.74 1 #	<1 #	<1 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	1.3 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		6.9 #	<1 1 #	<1 1 #	10.5 #	6.73 #	2.45 #
m,p-Xylene	<1 µg/l	TM208		8.65 #	<1 1 #	<1 1 #	7.73 #	8.48 #	2.91 #
o-Xylene	<1 µg/l	TM208		4.02 #	<1 1 #	<1 1 #	4.77 #	4.65 #	1.43 #
Styrene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1 1	<1 1	<1	<1	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		2.29 #	<1 1 #	<1 1 #	3.55 #	1.75 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1 1	<1 1	<1	<1	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1 1	<1 1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	LEACHATE HOLDING LAGOON	NACW228	NACW229	5 SUMP	6 SUMP	7 SUMP
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	08/07/2014	08/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599377	9599378	9599380	9599374	9599375	9599376
			AGS Reference						
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1 1	<1 1	<1	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	1/2 SUMP	3/4 SUMP	SW201	SW202	SW204	SW205
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599371	9599373	9599359	9599360	9599361	9599362
			AGS Reference						
Dibromofluoromethane**	%	TM208		103	103	117 1	115 1	112 1	116 1
Toluene-d8**	%	TM208		98.1	100	101 1	99.6 1	102 1	99.7 1
4-Bromofluorobenzene**	%	TM208		94.5	91.9	99.4 1	96.4 1	96.1 1	94 1
Dichlorodifluoromethane	<1 µg/l	TM208		<1	<1	<1 1	<1 1	<1 1	<1 1
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1 1	<1 1	<1 1	<1 1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	3.34 1 #	5.26 1 #	6.77 1 #	2.01 1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1 1	<1 1	<1 1	<1 1
Benzene	<1 µg/l	TM208		1.22 #	1.44 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	3.38 1 #	4.11 1 #	5.66 1 #	1.77 1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Toluene	<1 µg/l	TM208		4.35 #	6.05 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	1/2 SUMP	3/4 SUMP	SW201	SW202	SW204	SW205
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599371	9599373	9599359	9599360	9599361	9599362
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	1.69 1 #	2.45 1 #	3.63 1 #	1.27 1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Ethylbenzene	<1 µg/l	TM208		4.27 #	6.53 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
m,p-Xylene	<1 µg/l	TM208		5.74 #	8 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
o-Xylene	<1 µg/l	TM208		2.69 #	3.4 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1 1	<1 1	<1 1	<1 1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		1.66 #	2.15 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1 1	<1 1	<1 1	<1 1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1 1	<1 1	<1 1	<1 1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	1/2 SUMP	3/4 SUMP	SW201	SW202	SW204	SW205
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599371	9599373	9599359	9599360	9599361	9599362
			AGS Reference						
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1 1	<1 1	<1 1	<1 1

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW206	SW207	UD1	UD3	UD4	UD5
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599363	9599364	9599365	9599367	9599368	9599370
			AGS Reference						
Dibromofluoromethane**	%	TM208		117 1	114 1	115 1	113 1	120 1	112 1
Toluene-d8**	%	TM208		99.4 1	100 1	101 1	100 1	98.7 1	100 1
4-Bromofluorobenzene**	%	TM208		94.9 1	94 1	99.3 1	95.5 1	98.4 1	95.5 1
Dichlorodifluoromethane	<1 µg/l	TM208		<1 1	<1 1	<1 1	<1 1	<1 1	<1 1
Chloromethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Vinyl chloride	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Bromomethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Chloroethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Carbon disulphide	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Dichloromethane	<3 µg/l	TM208		<3 1 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1 1	<1 1	<1 1	<1 1	<1 1	<1 1
Bromochloromethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Chloroform	<1 µg/l	TM208		<1 1 #	2.32 1 #	6.42 1 #	3.87 1 #	1.31 1 #	<1 1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Carbontetrachloride	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1 1	<1 1	<1 1	<1 1	<1 1	<1 1
Benzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Trichloroethene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Dibromomethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Bromodichloromethane	<1 µg/l	TM208		<1 1 #	2.01 1 #	5.88 1 #	3.49 1 #	<1 1 #	<1 1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Toluene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
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*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW206	SW207	UD1	UD3	UD4	UD5
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599363	9599364	9599365	9599367	9599368	9599370
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Tetrachloroethene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Dibromochloromethane	<1 µg/l	TM208		<1 1 #	1.11 1 #	2.97 1 #	1.98 1 #	<1 1 #	<1 1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Chlorobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Ethylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
m,p-Xylene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
o-Xylene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Styrene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Bromoform	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Isopropylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1 1	<1 1	<1 1	<1 1	<1 1	<1 1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Bromobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Propylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
n-Butylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1 1	<1 1	<1 1	<1 1	<1 1	<1 1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1 1	<1 1	<1 1	<1 1	<1 1	<1 1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Naphthalene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW206	SW207	UD1	UD3	UD4	UD5
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599363	9599364	9599365	9599367	9599368	9599370
			AGS Reference						
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1 1	<1 1	<1 1	<1 1	<1 1	<1 1

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
Calulation				
TM022	Method 2540D, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part120 1981;BS EN 872	Determination of total suspended solids in waters		
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples		
TM045	MEWAM BOD5 2nd Ed.HMSO 1988 / Method 5210B, AWWA/APHA, 20th Ed., 1999; SCA Blue Book 130	Determination of BOD5 (ATU) Filtered by Oxygen Meter on liquids		
TM061	Method for the Determination of EPH,Massachusetts Dept.of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)		
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM107	ISO 6060-1989	Determination of Chemical Oxygen Demand using COD Dr Lange Kit		
TM120	Method 2510B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part 9:1970	Determination of Electrical Conductivity using a Conductivity Meter		
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS		
TM172	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	EPH in Waters		
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters		
TM228	US EPA Method 6010B	Determination of Major Cations in Water by iCap 6500 Duo ICP-OES		
TM245	By GC-FID	Determination of GRO by Headspace in waters		
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter		
TM324		Analysis of Acid Herbicides in Aqueous Sample by LCQQQ		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	9599374	9599375	9599376	9599371	9599373	9599377	9599378	9599380	9599359	9599360
Customer Sample Ref.	5 SUMP	6 SUMP	7 SUMP	1/2 SUMP	3/4 SUMP	LEACHATE HOLDING LAGOON	NACW228	NACW229	SW201	SW202
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Acid Herbicides by LCQQQ (aq)	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014
Alkalinity as CaCO3	18-Jul-2014	18-Jul-2014	16-Jul-2014	15-Jul-2014	15-Jul-2014	18-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014
Alkalinity Filtered as CaCO3									18-Jul-2014	18-Jul-2014
Ammoniacal Nitrogen	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	16-Jul-2014
Anions by Kone (w)	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	21-Jul-2014
BOD True Total	17-Jul-2014	17-Jul-2014	17-Jul-2014	17-Jul-2014	17-Jul-2014	17-Jul-2014				
COD Unfiltered	16-Jul-2014	13-Jul-2014	18-Jul-2014	13-Jul-2014	16-Jul-2014	16-Jul-2014				
Conductivity (at 20 deg.C)	14-Jul-2014	14-Jul-2014	14-Jul-2014	16-Jul-2014	16-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014
Dissolved Metals by ICP-MS	16-Jul-2014	16-Jul-2014	16-Jul-2014	21-Jul-2014	21-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014
EPH (DRO) (C10-C40) Aqueous (W)	18-Jul-2014	17-Jul-2014	18-Jul-2014	17-Jul-2014	17-Jul-2014	18-Jul-2014	17-Jul-2014	17-Jul-2014	17-Jul-2014	17-Jul-2014
GRO by GC-FID (W)	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014
Ionic Balance									18-Jul-2014	21-Jul-2014
Metals by iCap-OES Dissolved (W)	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014
Nitrite by Kone (w)							15-Jul-2014	15-Jul-2014	14-Jul-2014	16-Jul-2014
pH Value									16-Jul-2014	16-Jul-2014
Suspended Solids									15-Jul-2014	15-Jul-2014
SVOC MS (W) - Aqueous	18-Jul-2014	18-Jul-2014	15-Jul-2014	18-Jul-2014	18-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014
Total EPH (aq)	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014
Total Organic and Inorganic Carbon	15-Jul-2014	15-Jul-2014	15-Jul-2014	16-Jul-2014	16-Jul-2014	15-Jul-2014			15-Jul-2014	15-Jul-2014
VOC MS (W)	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014

Lab Sample No(s)	9599361	9599362	9599363	9599364	9599365	9599367	9599368	9599370
Customer Sample Ref.	SW204	SW205	SW206	SW207	UD1	UD3	UD4	UD5
AGS Ref.								
Depth								
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Acid Herbicides by LCQQQ (aq)	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014
Alkalinity as CaCO3	16-Jul-2014	16-Jul-2014	16-Jul-2014	18-Jul-2014	16-Jul-2014	18-Jul-2014	15-Jul-2014	15-Jul-2014
Alkalinity Filtered as CaCO3	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014				
Ammoniacal Nitrogen	16-Jul-2014	16-Jul-2014	15-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014
Anions by Kone (w)	16-Jul-2014	21-Jul-2014	16-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	21-Jul-2014	21-Jul-2014
Conductivity (at 20 deg.C)	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	16-Jul-2014	16-Jul-2014
Dissolved Metals by ICP-MS	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014
EPH (DRO) (C10-C40) Aqueous (W)	17-Jul-2014	17-Jul-2014	17-Jul-2014	17-Jul-2014	17-Jul-2014	17-Jul-2014	17-Jul-2014	17-Jul-2014
GRO by GC-FID (W)	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014
Ionic Balance	18-Jul-2014	21-Jul-2014	18-Jul-2014	21-Jul-2014				
Metals by iCap-OES Dissolved (W)	16-Jul-2014	16-Jul-2014	14-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	18-Jul-2014	18-Jul-2014
Nitrite by Kone (w)	16-Jul-2014	16-Jul-2014	16-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014
pH Value	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014				
Suspended Solids	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014				
SVOC MS (W) - Aqueous	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	18-Jul-2014	18-Jul-2014
Total EPH (aq)	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014
Total Organic and Inorganic Carbon	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014				
VOC MS (W)	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

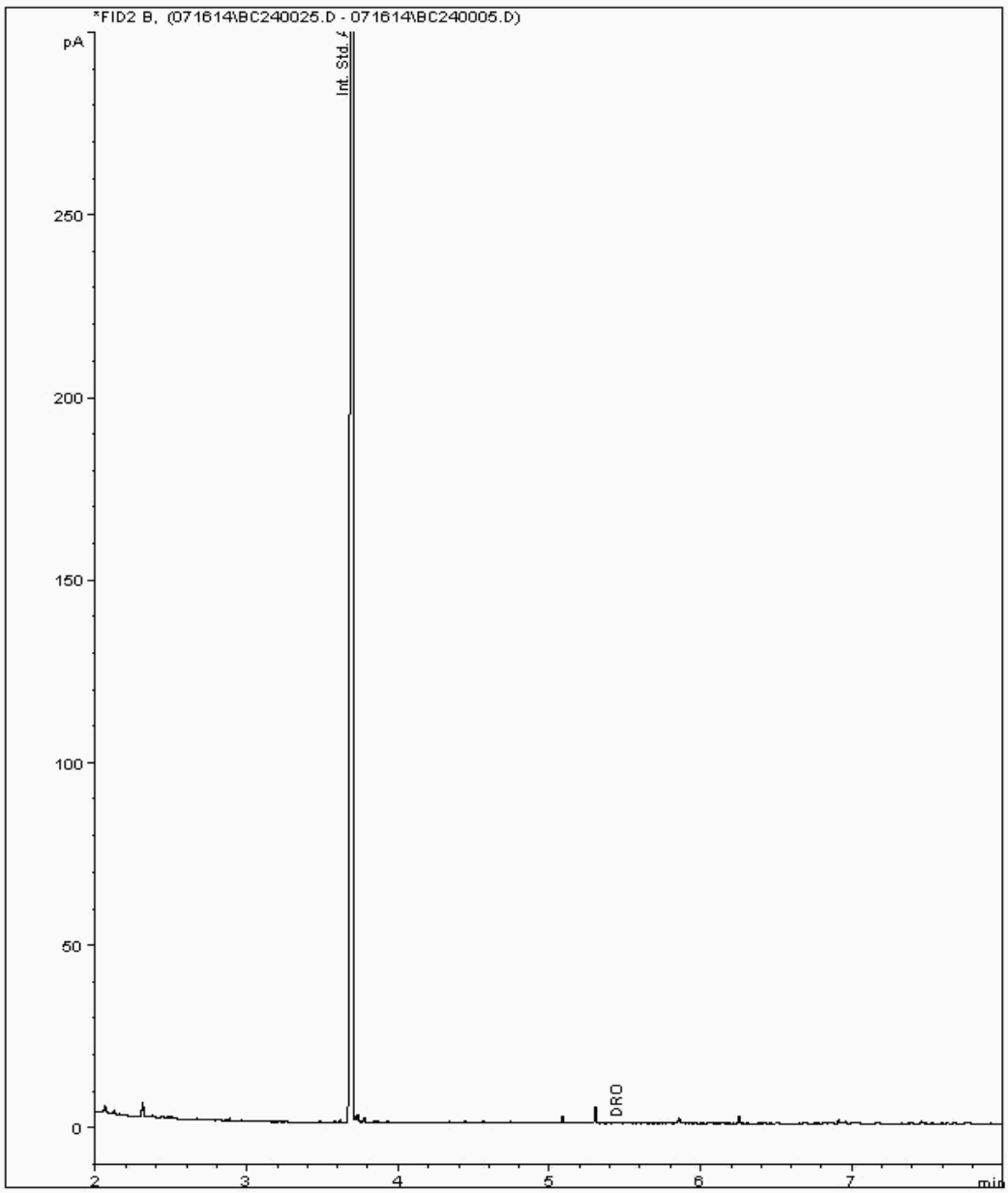
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9603911
Sample ID : SW205

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117086-9603911
Date Acquired : 17/07/2014 08:58:52 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

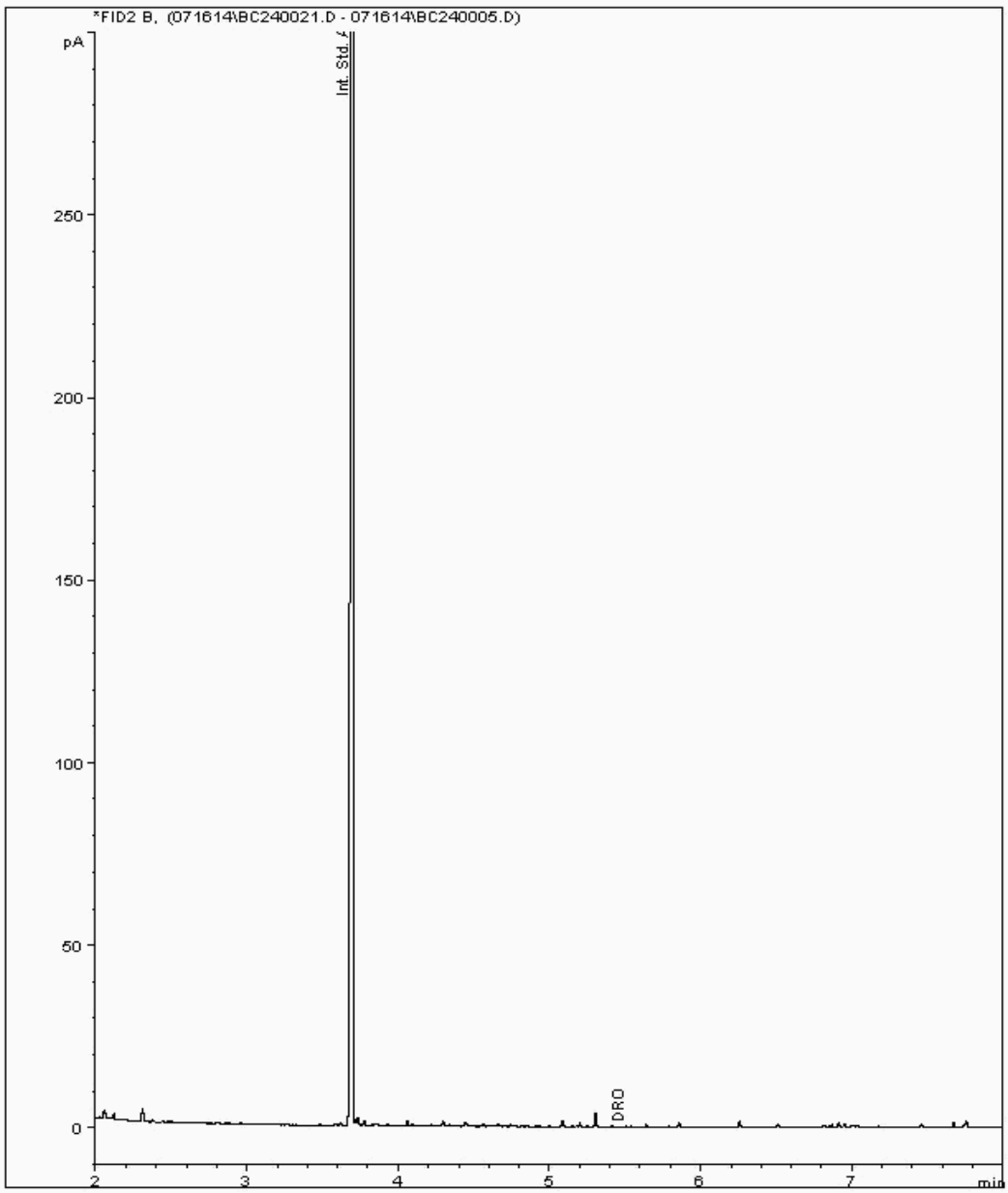
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: EPH (DRO) (C10-C40) Aqueous (W) **Sample No :** 9603936 **Sample ID :** UD1 **Depth :**

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117218-9603936
Date Acquired : 16/07/2014 21:37:41 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

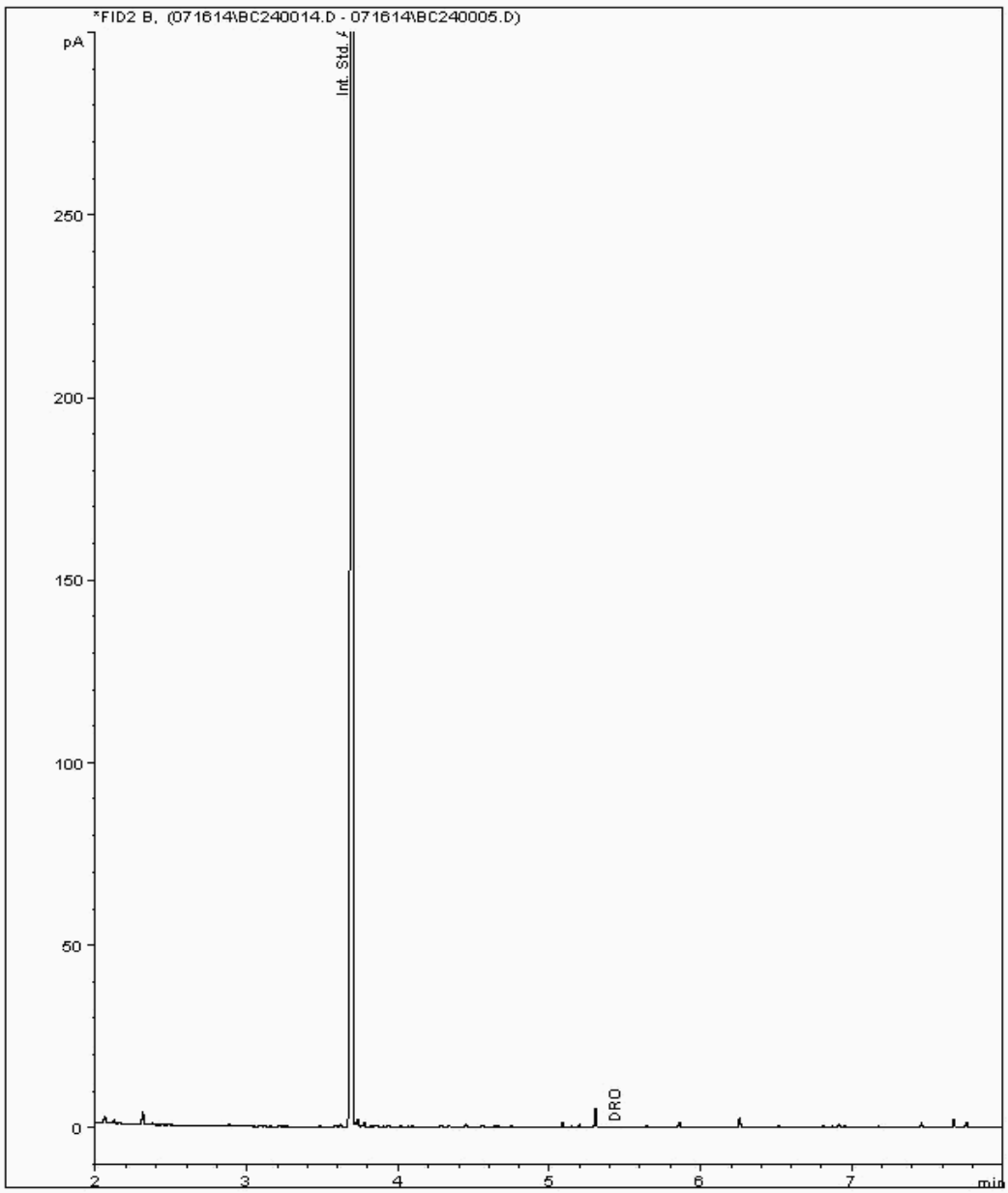
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9604103
Sample ID : UD3

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117248-9604103
Date Acquired : 16/07/2014 18:58:05 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

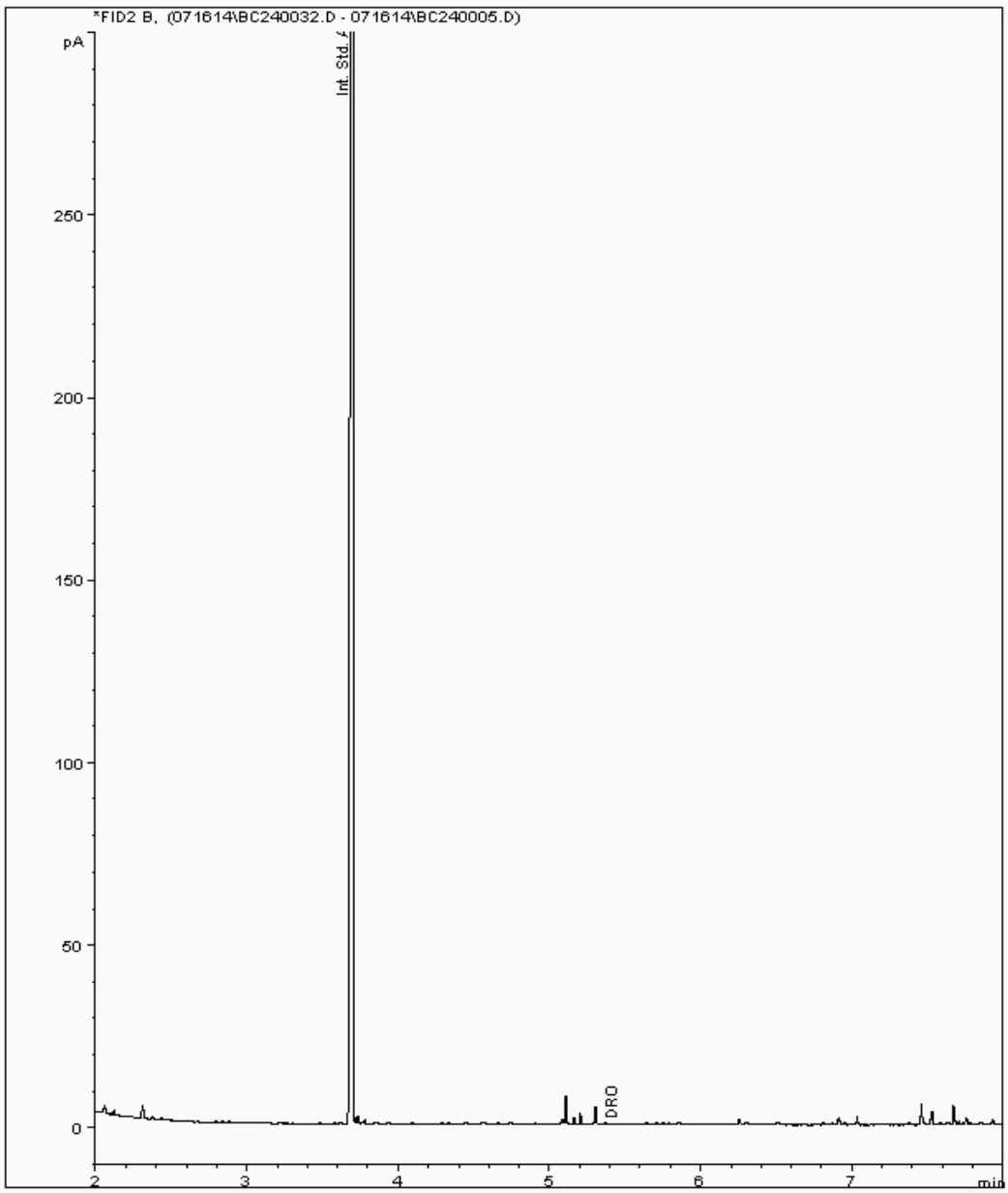
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9604130
Sample ID : SW206

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117125-9604130
Date Acquired : 17/07/2014 11:40:03 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

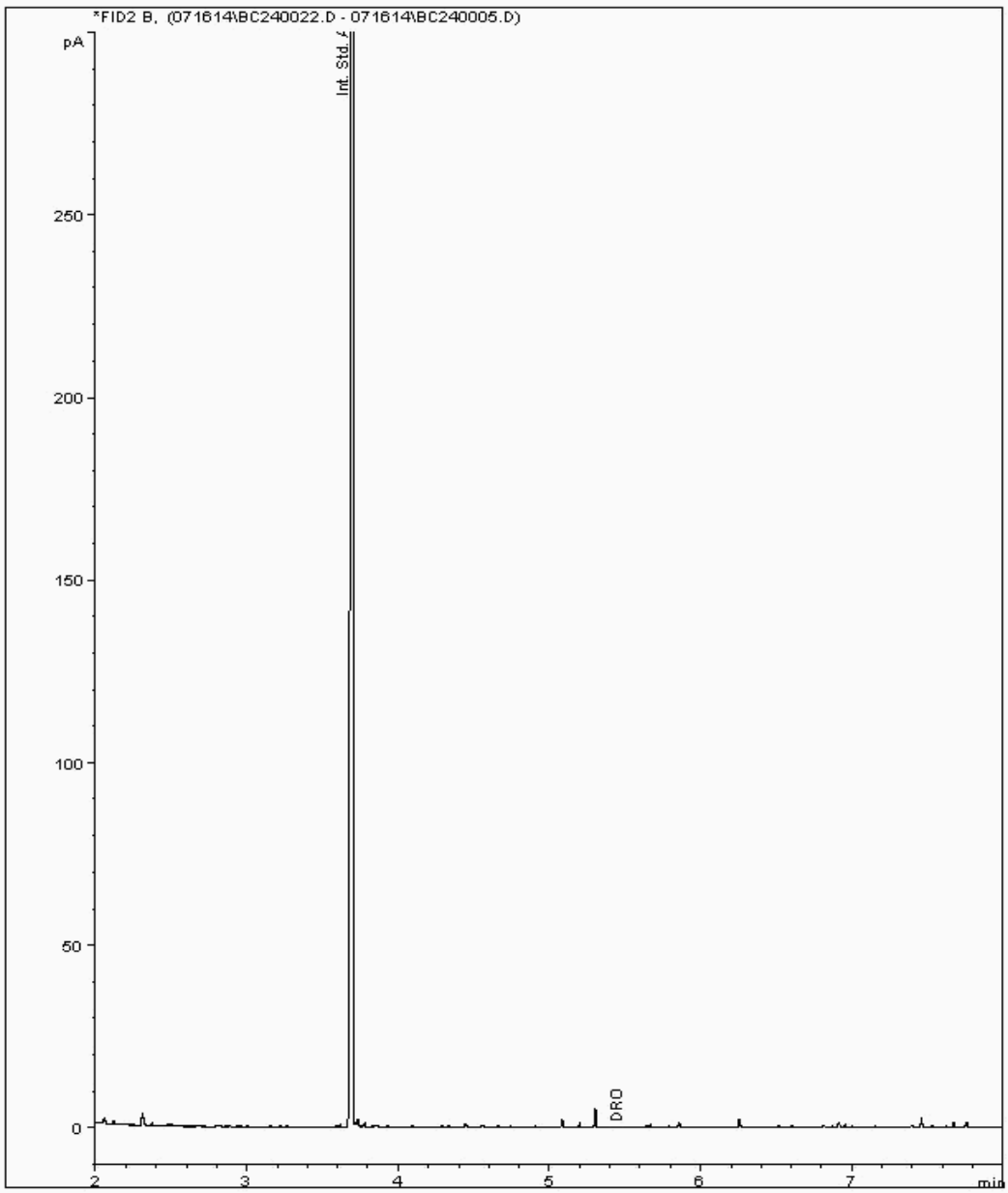
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9604149
Sample ID : SW204

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117036-9604149
Date Acquired : 16/07/2014 22:00:26 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

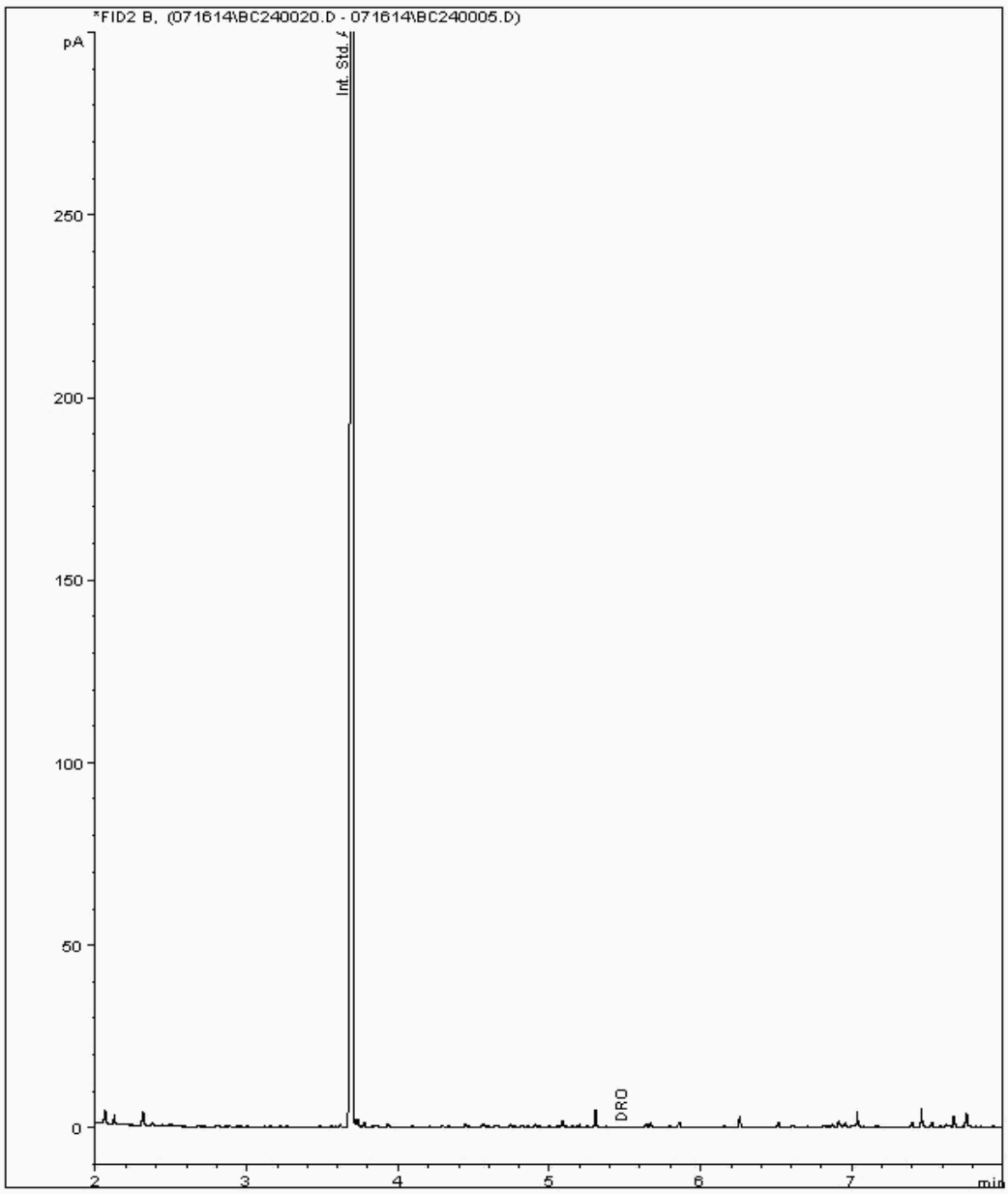
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9604196
Sample ID : SW207

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117180-9604196
Date Acquired : 16/07/2014 21:15:07 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

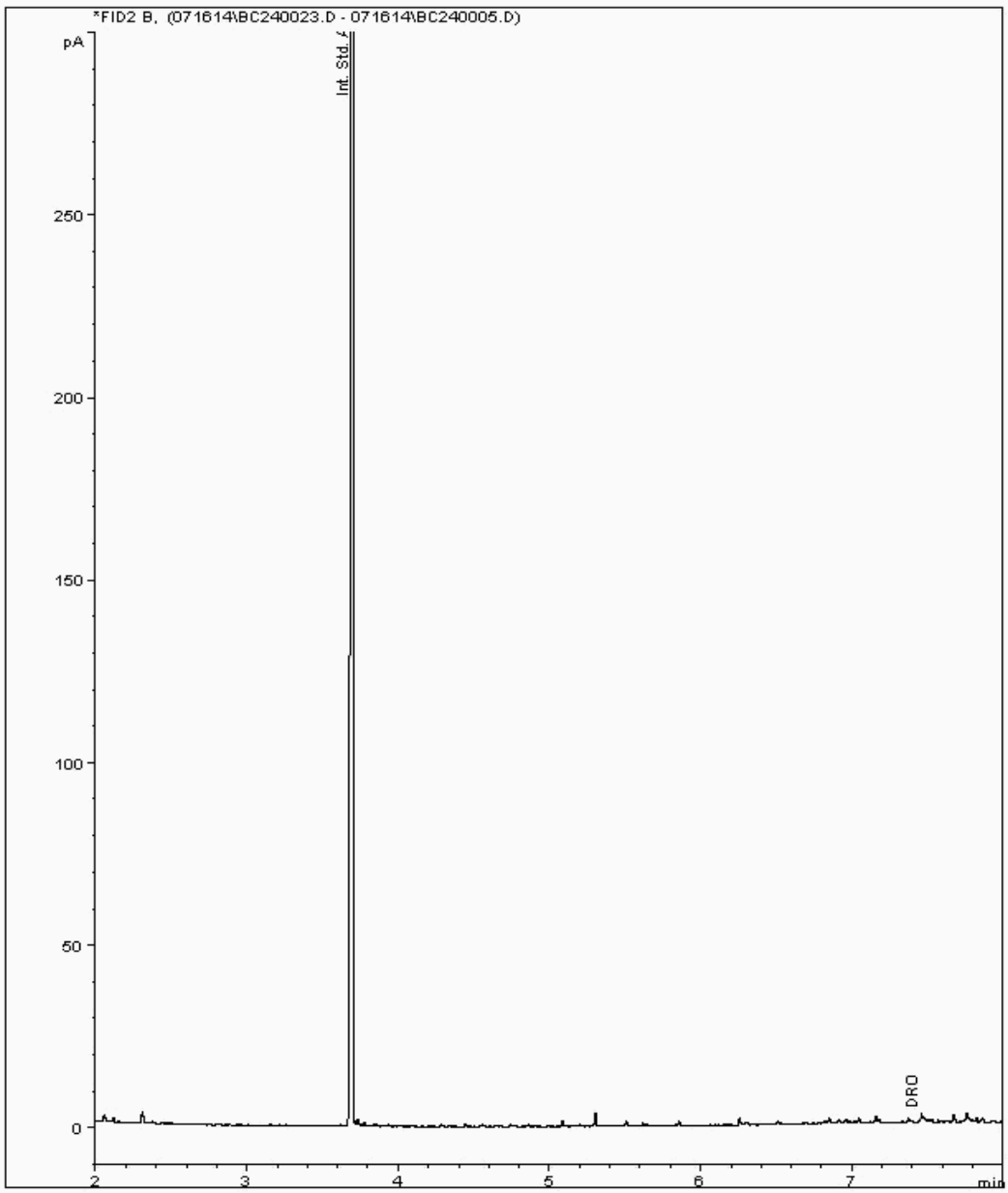
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9604239
Sample ID : SW202

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9116995-9604239
Date Acquired : 16/07/2014 22:23:13 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

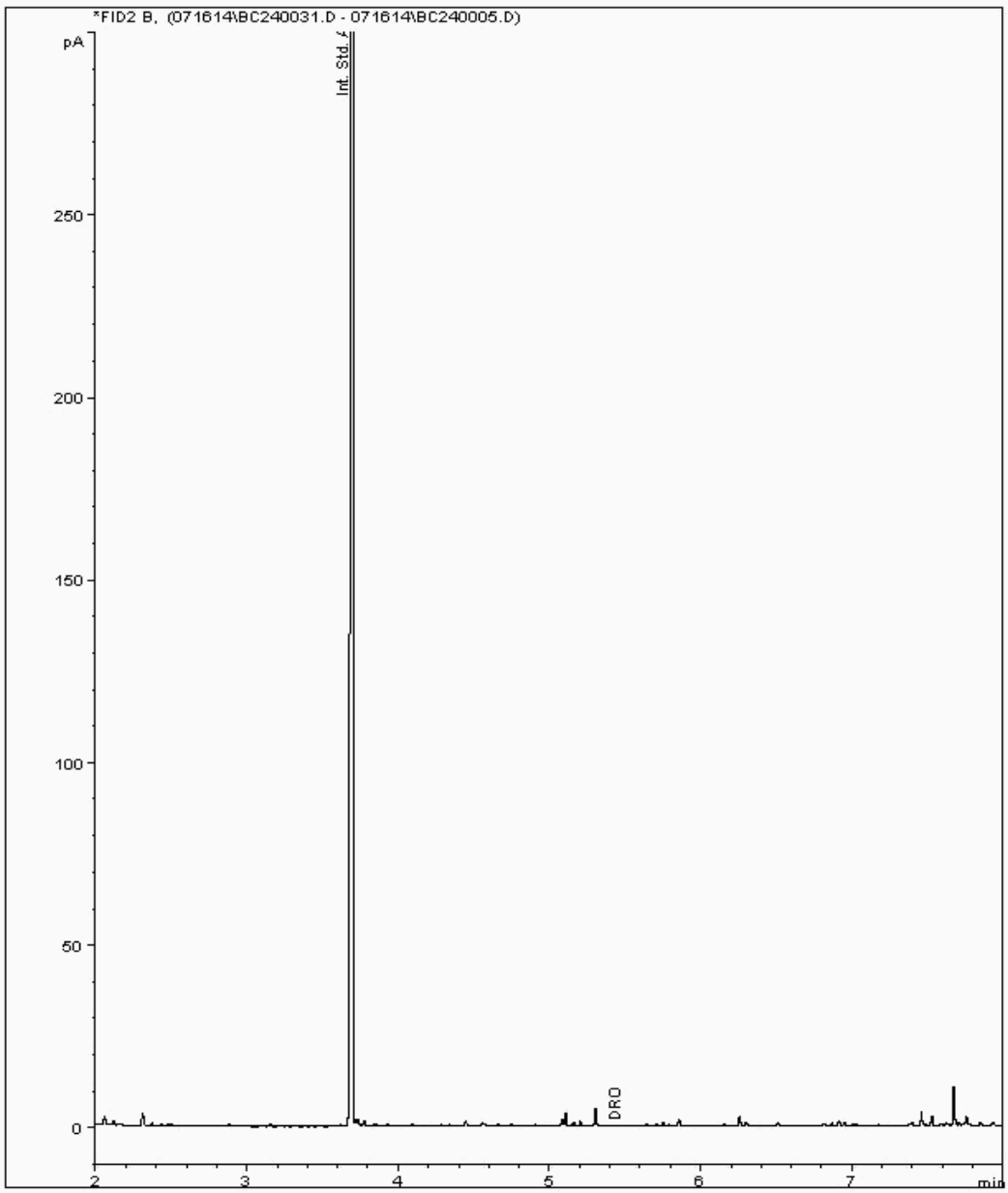
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9604294
Sample ID : SW201

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9116941-9604294
Date Acquired : 17/07/2014 11:16:32 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

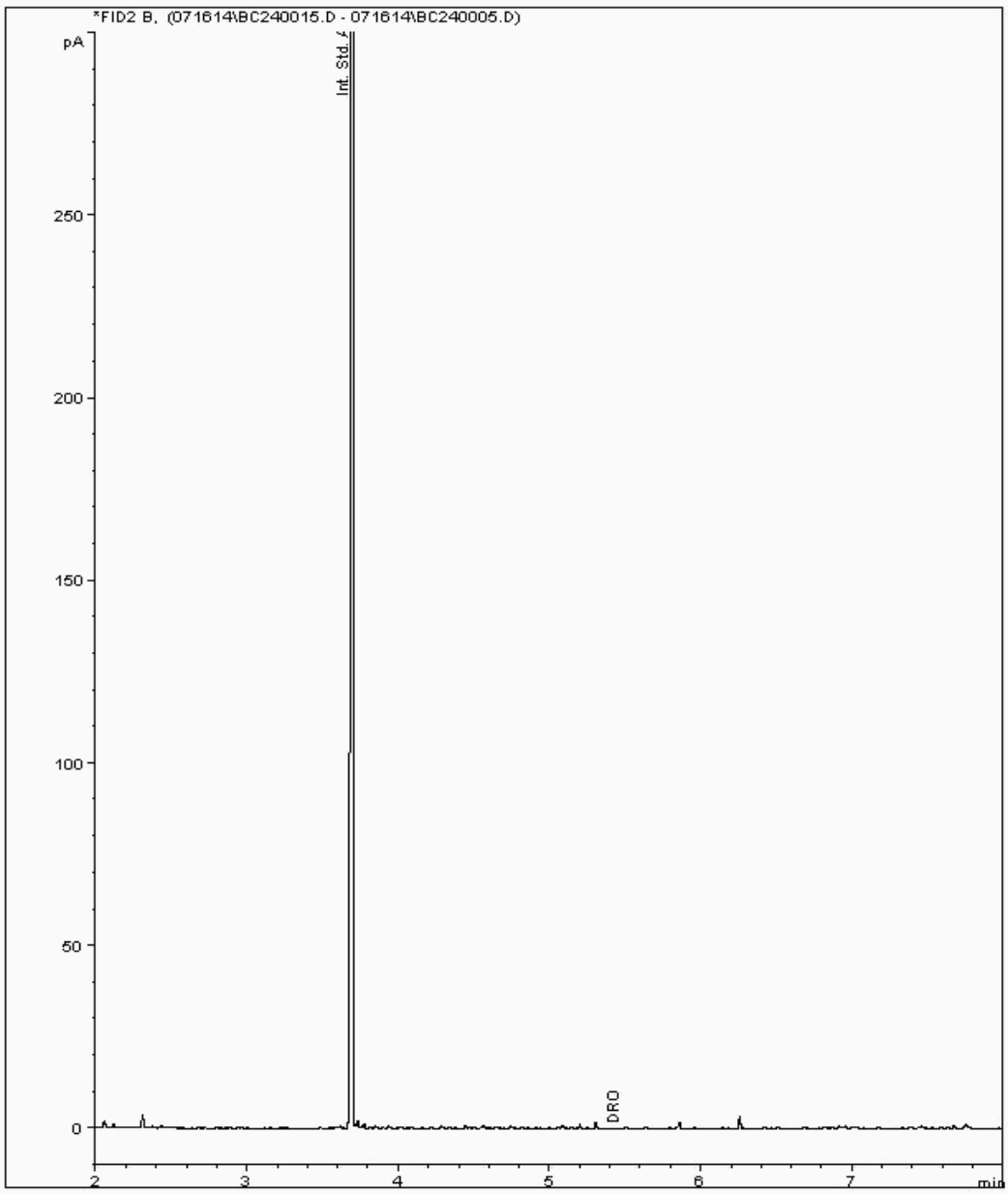
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9604414
Sample ID : NACW229

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117419-9604414
Date Acquired : 16/07/2014 19:20:57 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

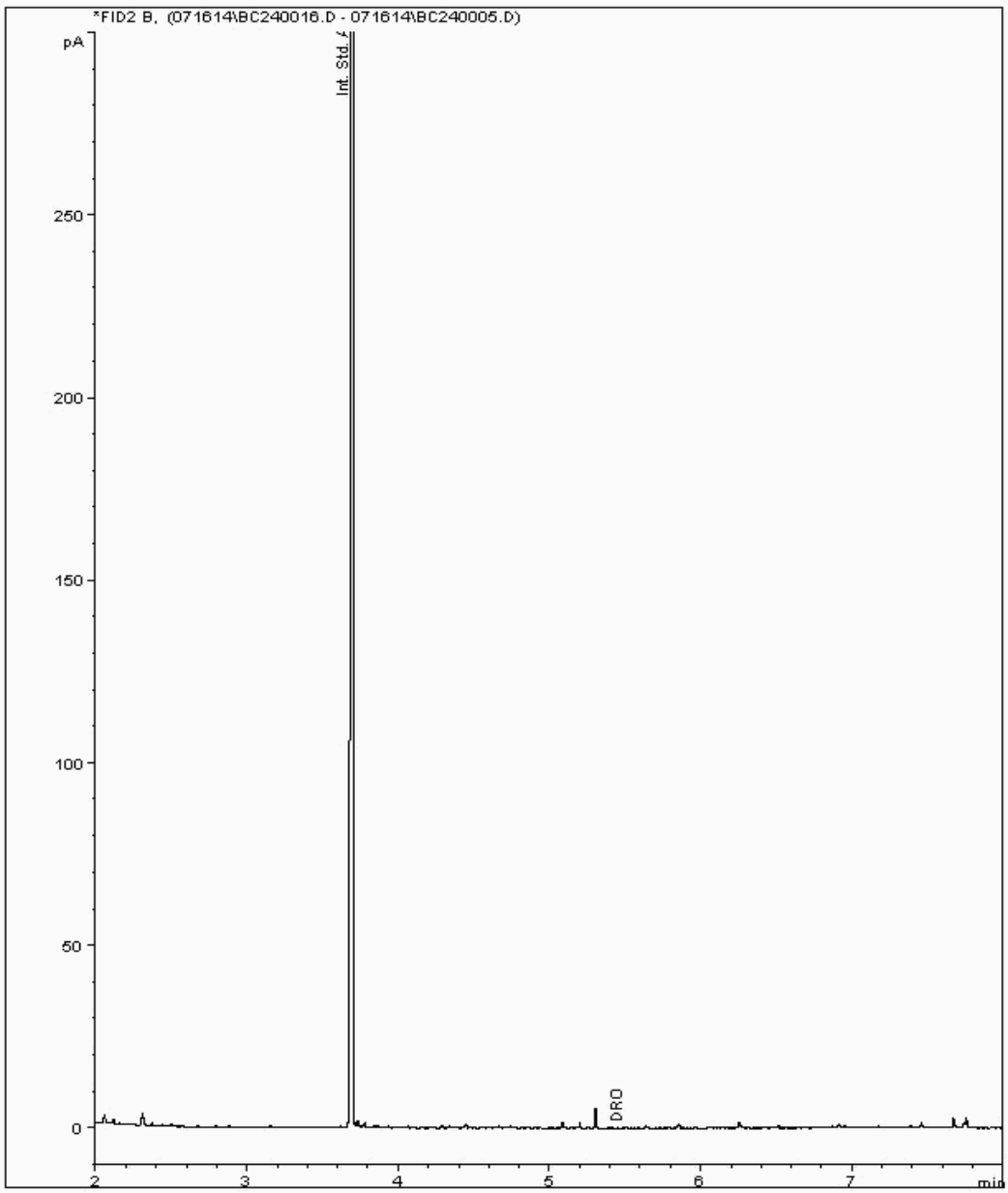
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9604454
Sample ID : NACW228

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117399-9604454
Date Acquired : 16/07/2014 19:43:58 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

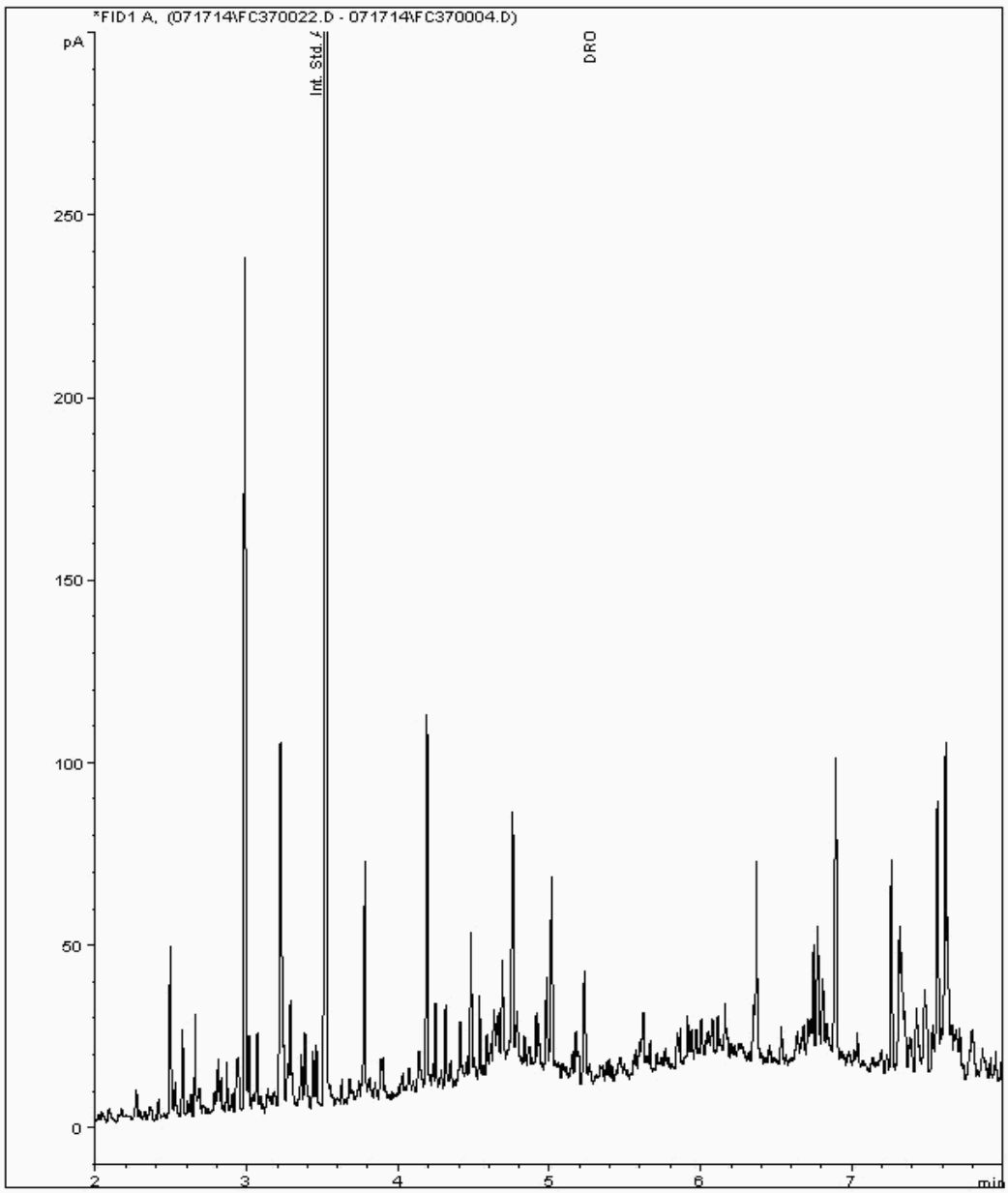
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9606668
Sample ID : 7 SUMP

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117367-9606668
Date Acquired : 17/07/2014 19:08:50 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

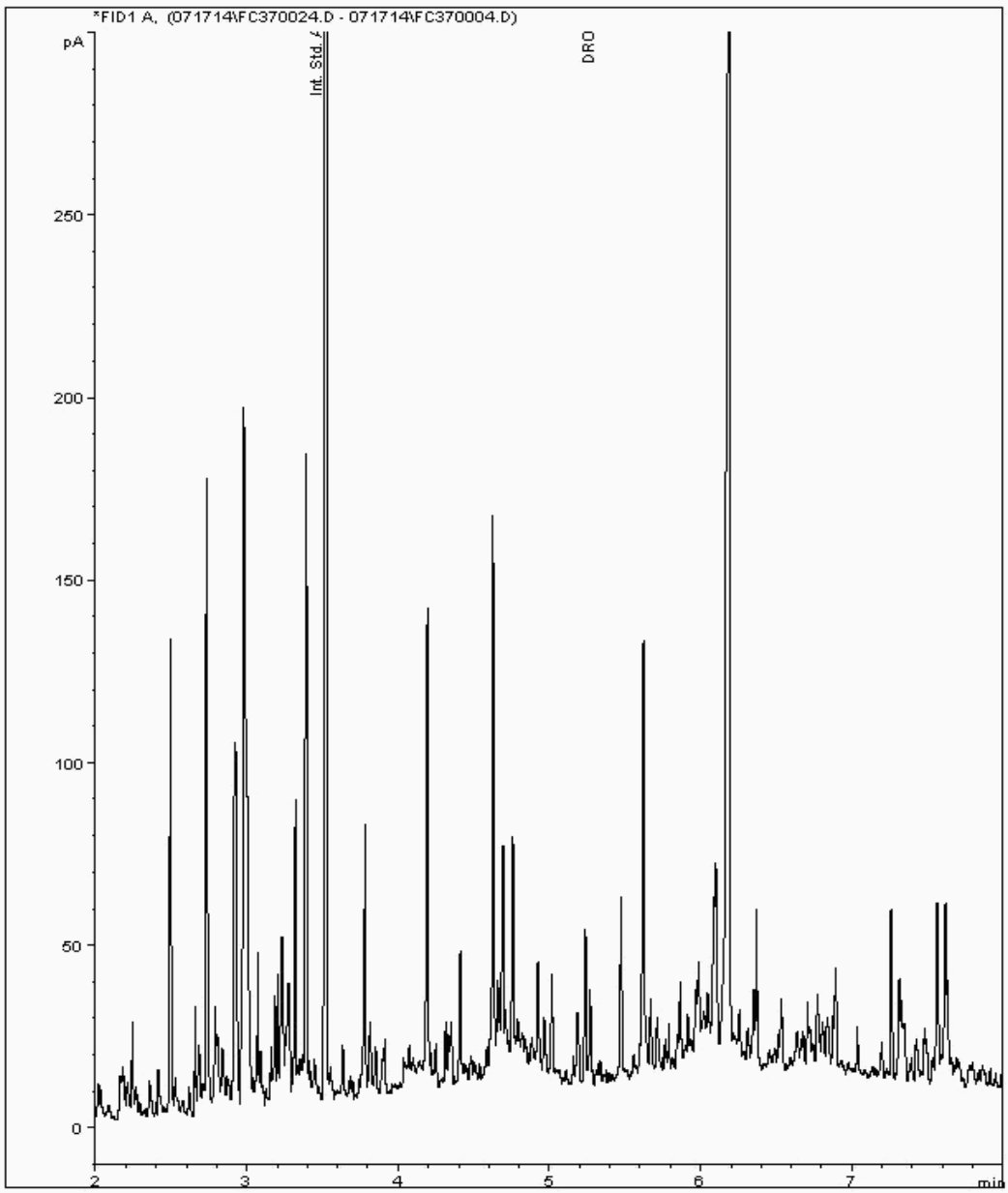
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9606795
Sample ID : LEACHATE HOLDING LAGOC

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117383-9606795
Date Acquired : 17/07/2014 19:54:55 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

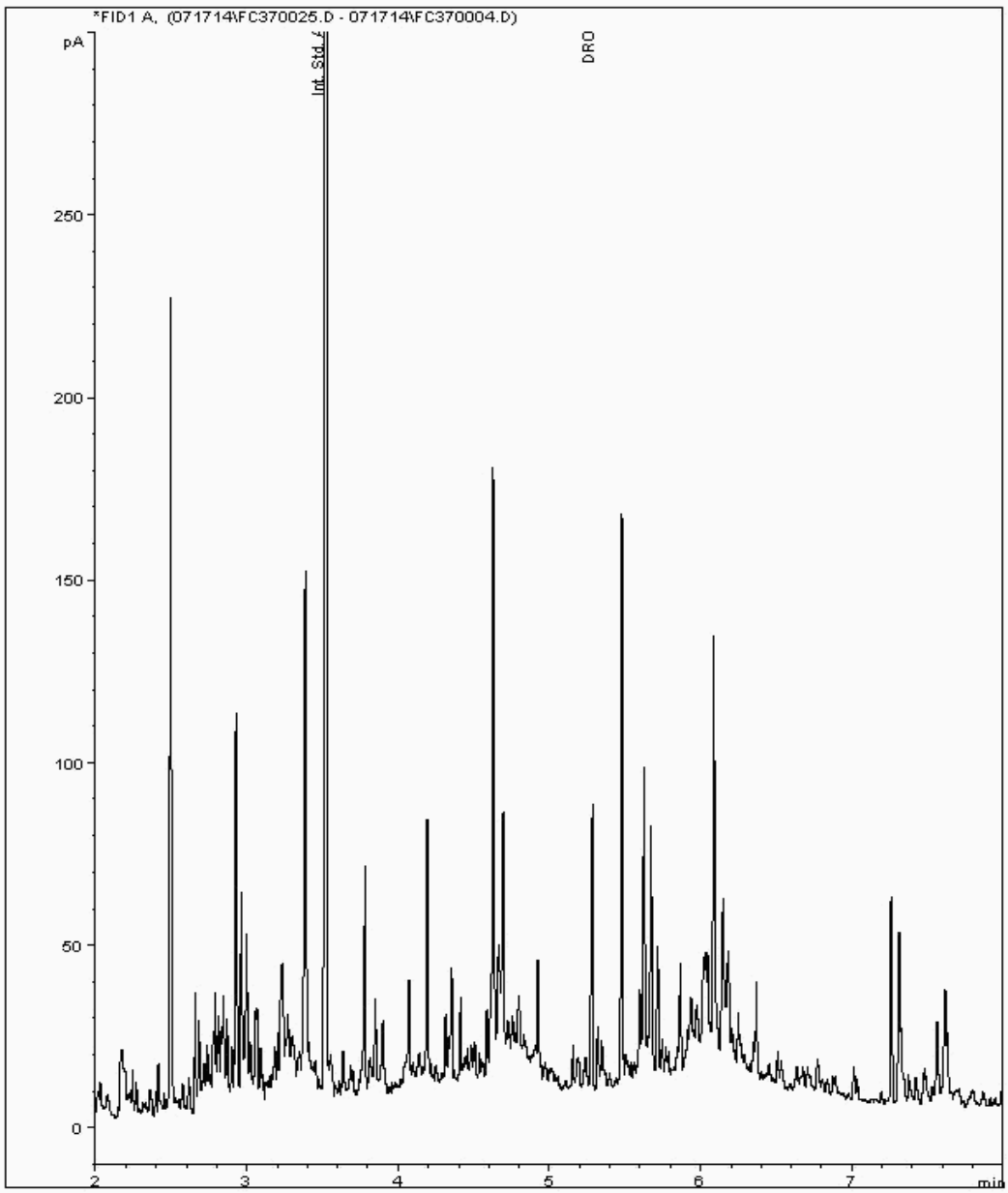
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9606831
Sample ID : 5 SUMP

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117333-9606831
Date Acquired : 17/07/2014 20:17:45 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

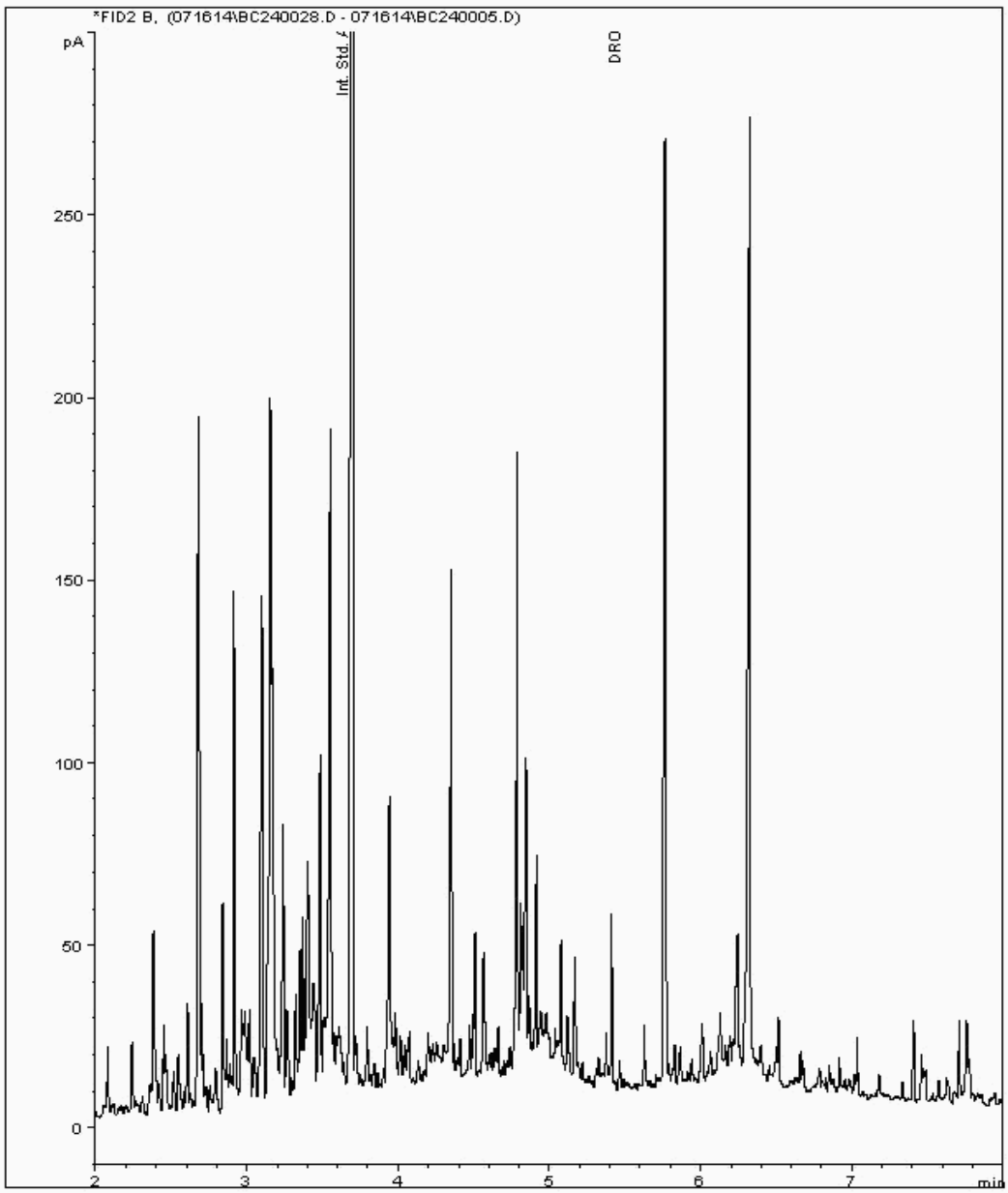
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9607023
Sample ID : 6 SUMP

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117351-9607023
Date Acquired : 17/07/2014 10:07:33 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

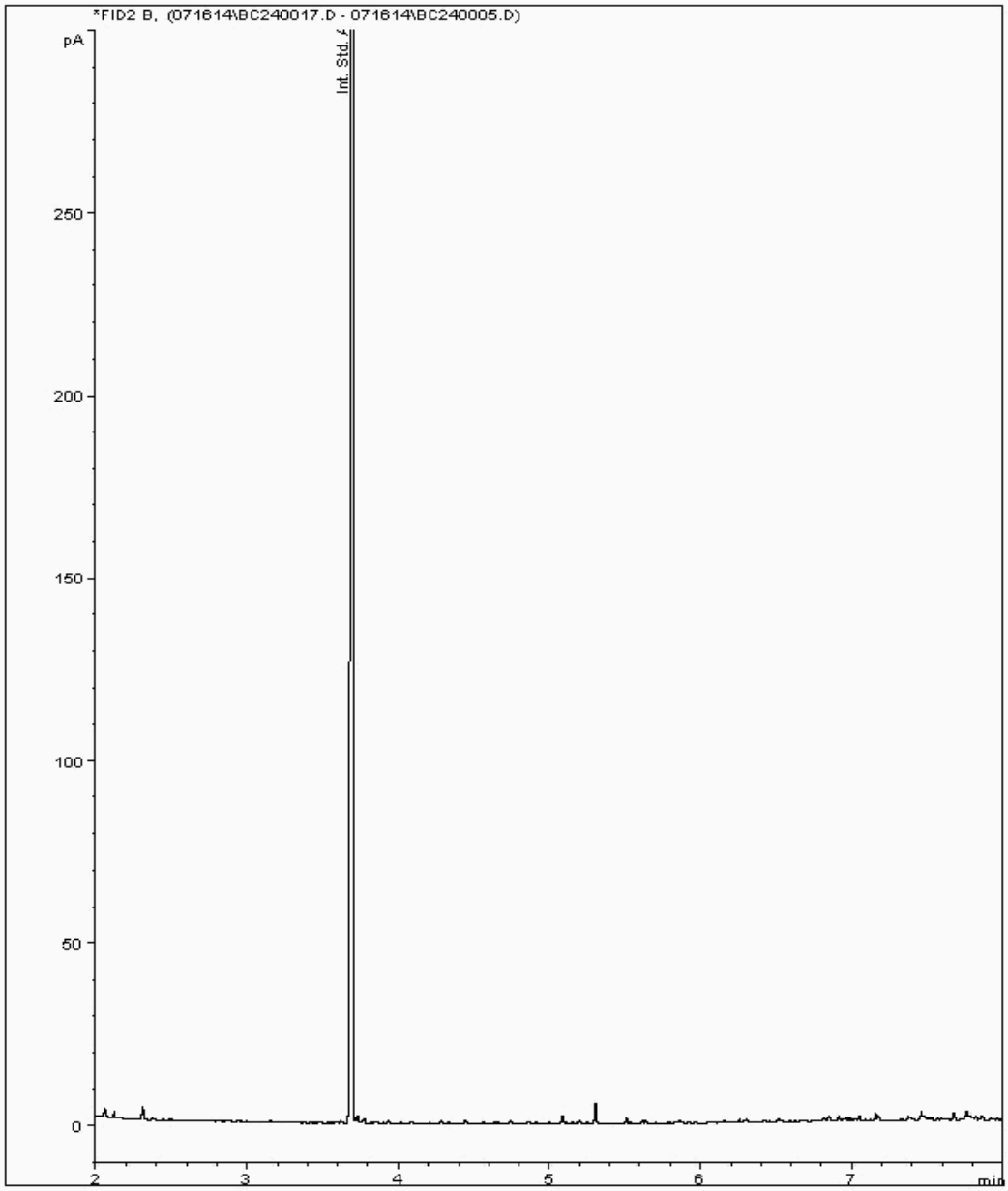
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9615358
Sample ID : UD4

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117269-9615358
Date Acquired : 16/07/2014 20:06:48 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

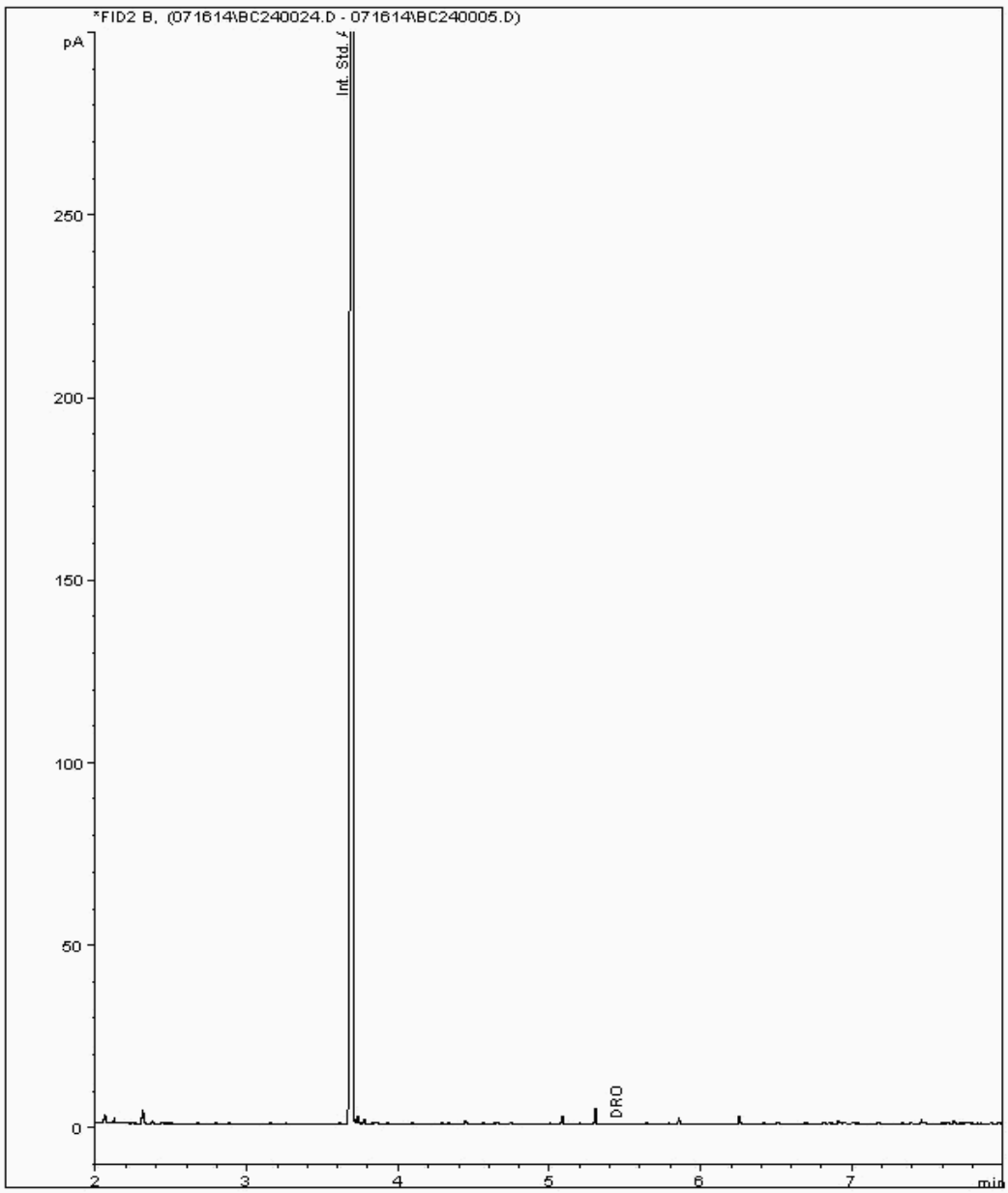
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9615381
Sample ID : UD5

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117284-9615381
Date Acquired : 17/07/2014 08:36:27 PM
Units : mg/l

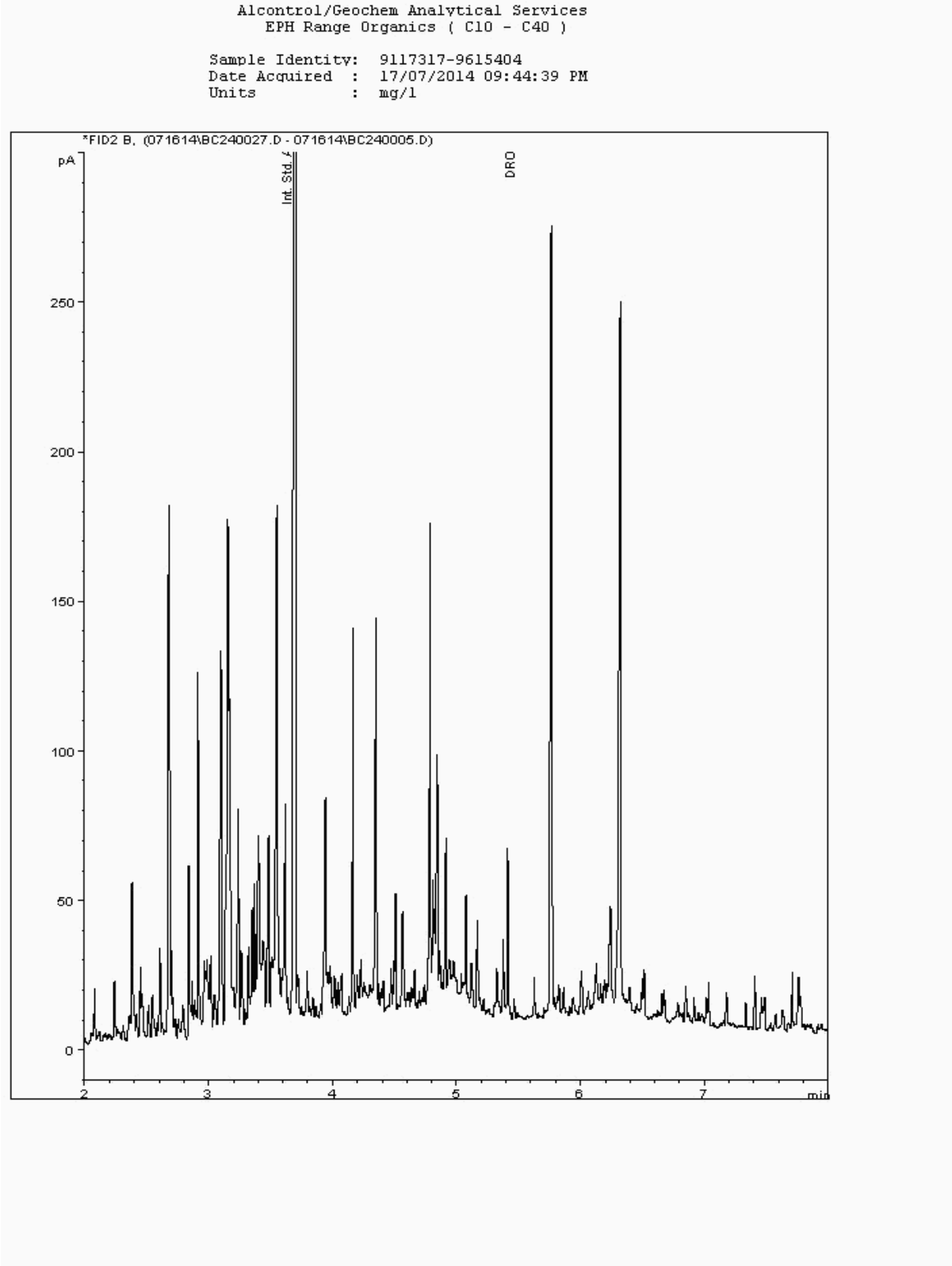


CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis:	EPH (DRO) (C10-C40) Aqueous (W)	**Sample No :**	9615404	**Depth :**	
		Sample ID :	3/4 SUMP		



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

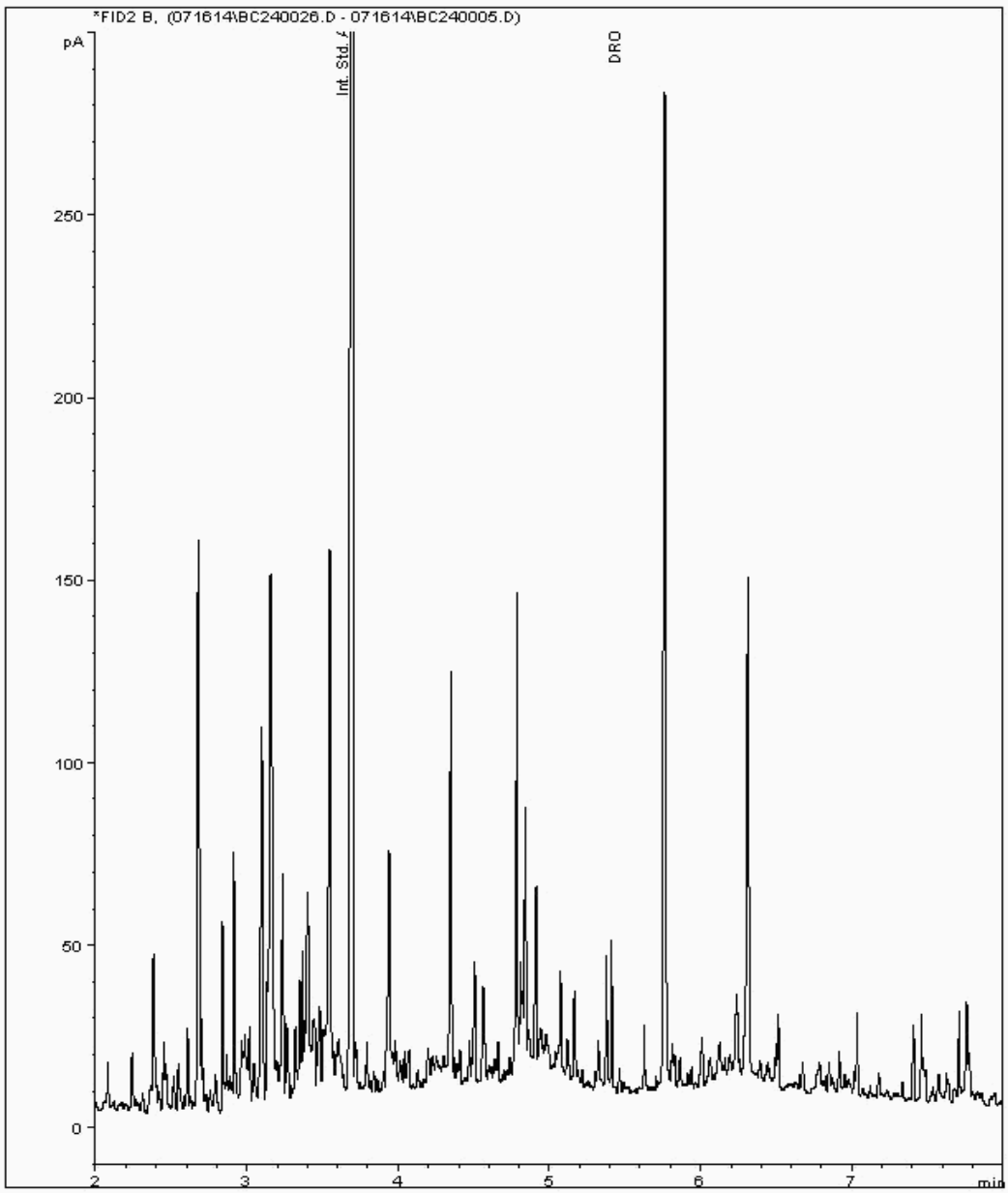
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9615414
Sample ID : 1/2 SUMP

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117298-9615414
Date Acquired : 17/07/2014 09:21:49 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

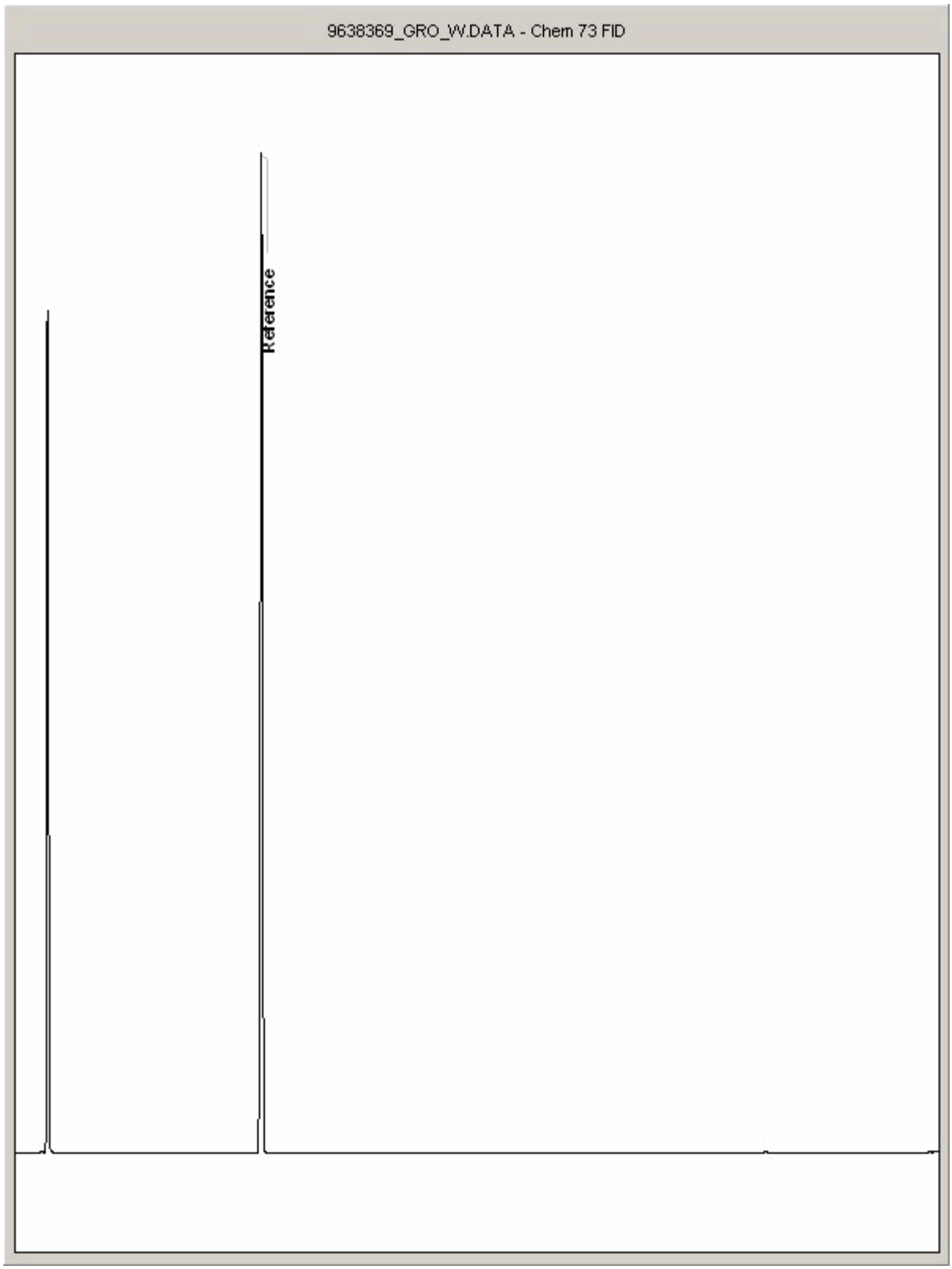
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638369
Sample ID : NACW228

Depth :



CERTIFICATE OF ANALYSIS

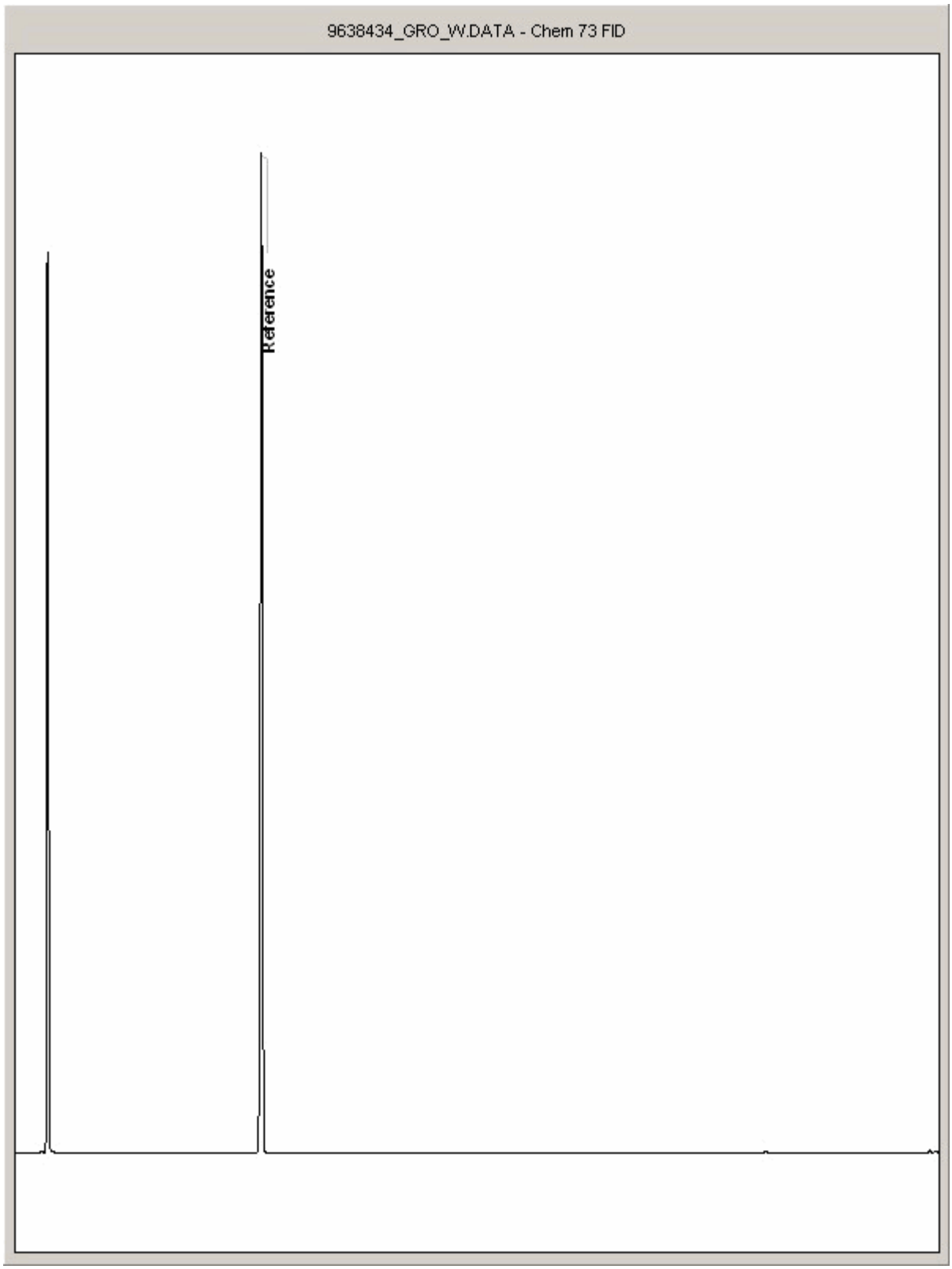
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638434
Sample ID : NACW229

Depth :



CERTIFICATE OF ANALYSIS

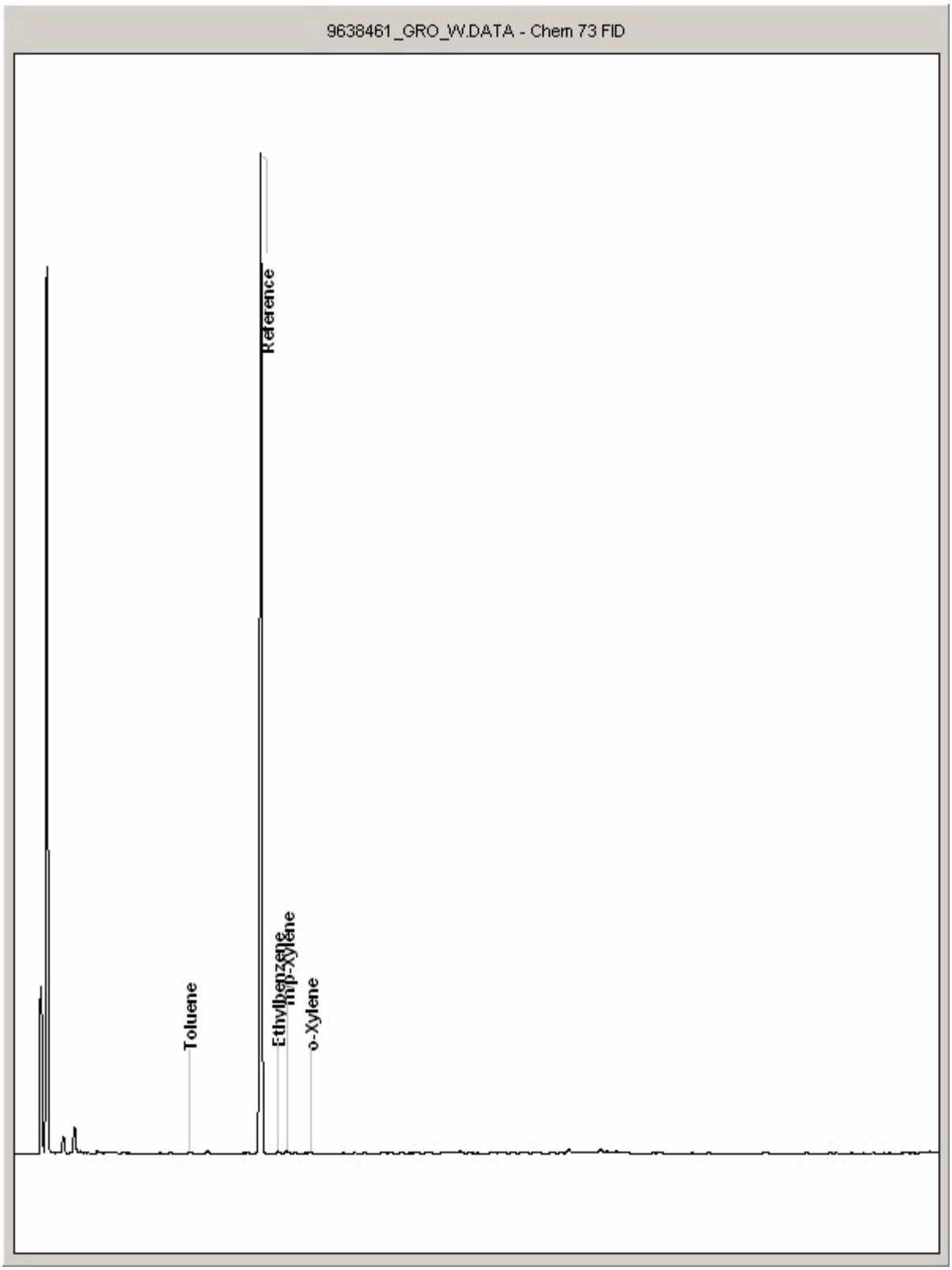
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638461
Sample ID : LEACHATE HOLDING LAGOC

Depth :



CERTIFICATE OF ANALYSIS

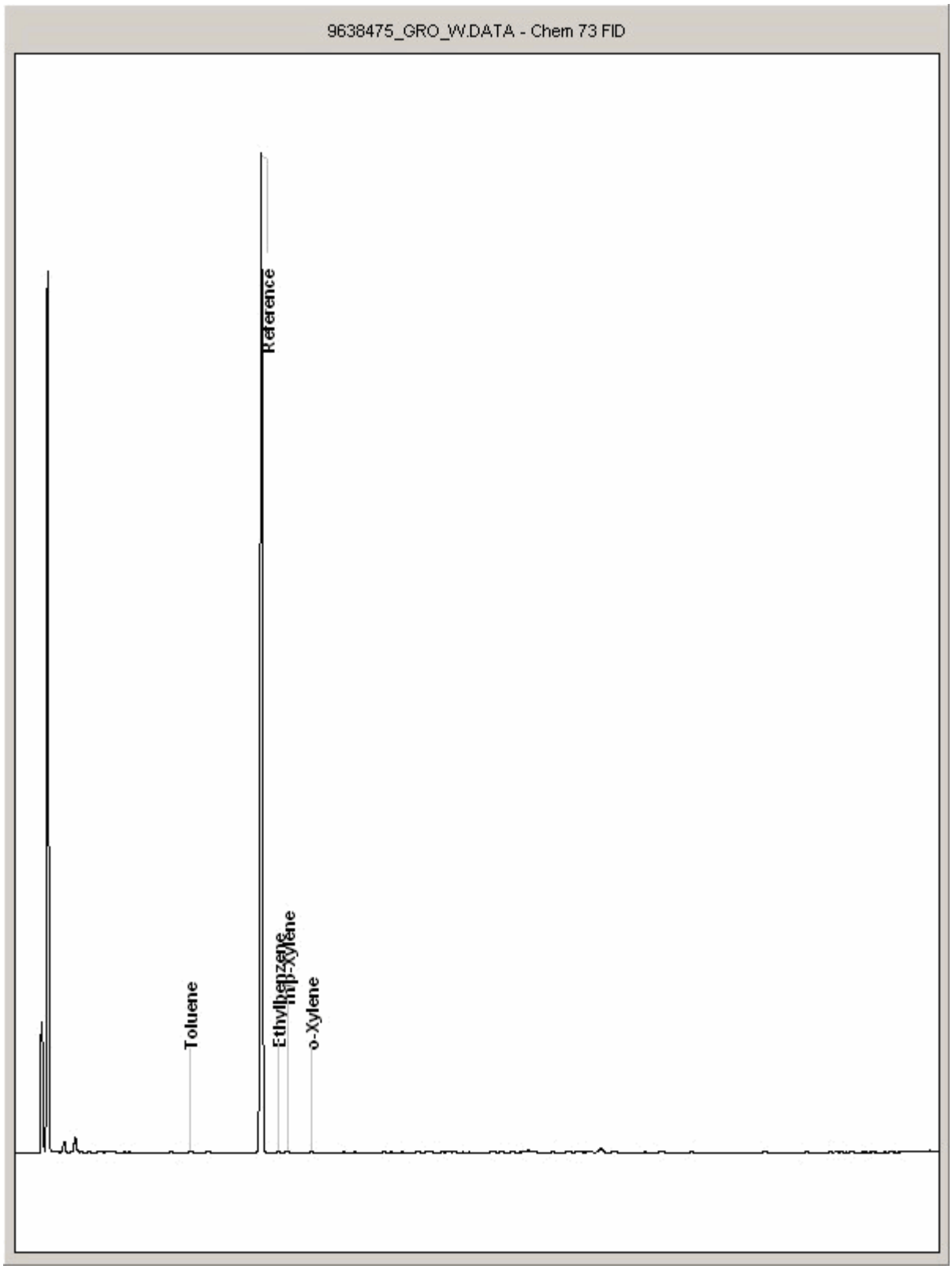
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638475
Sample ID : 7 SUMP

Depth :



CERTIFICATE OF ANALYSIS

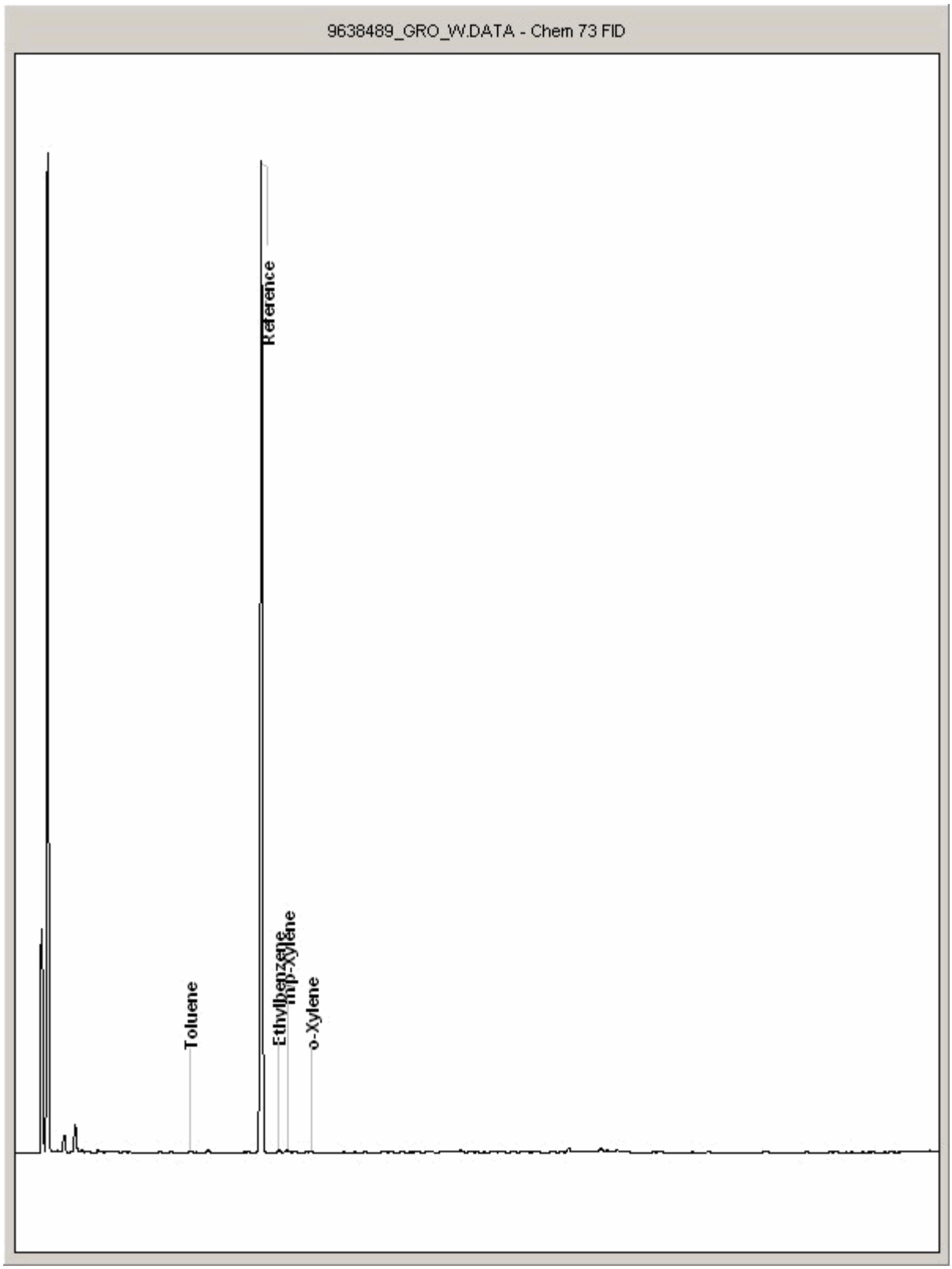
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638489
Sample ID : 6 SUMP

Depth :



CERTIFICATE OF ANALYSIS

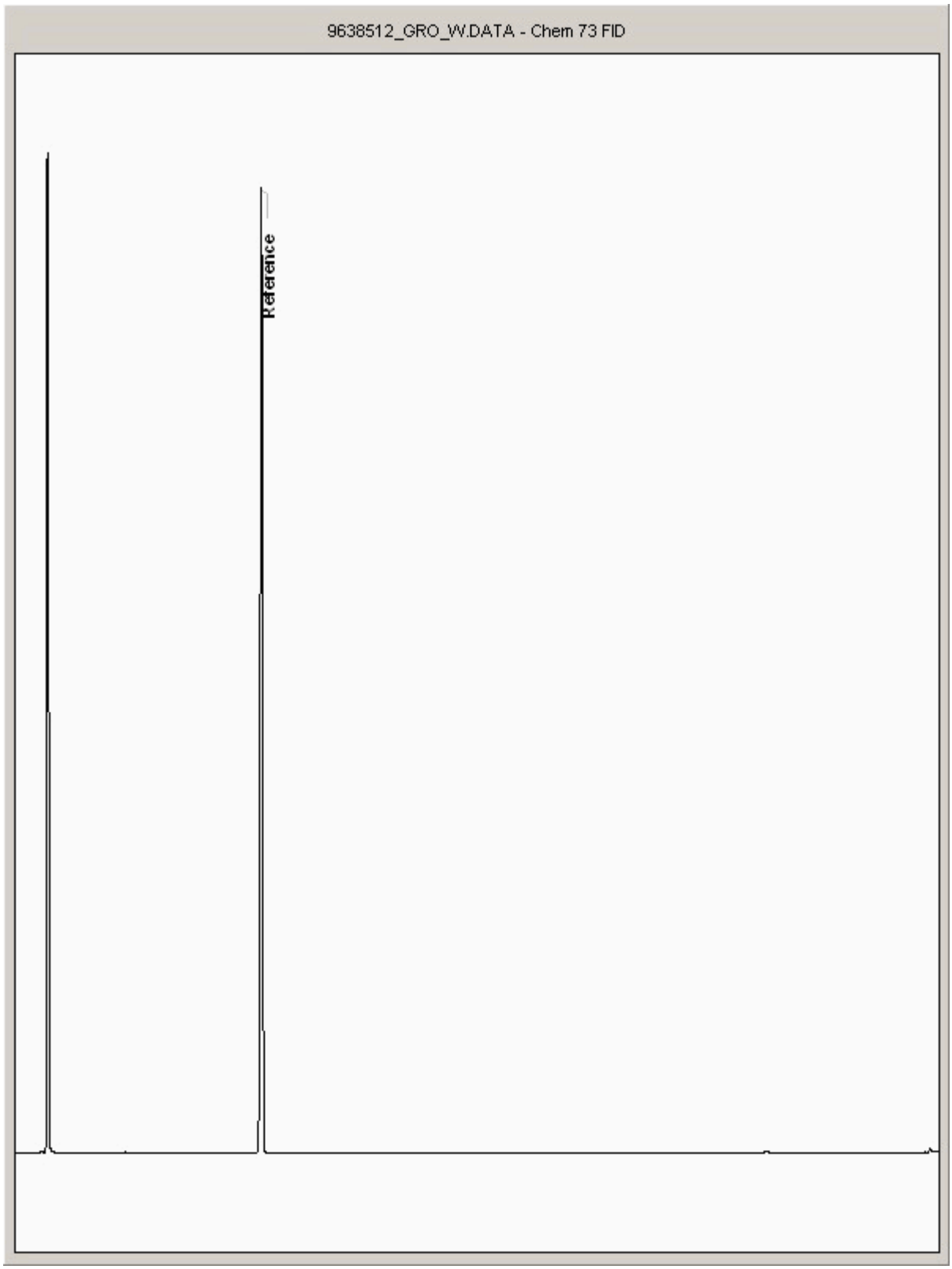
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638512
Sample ID : UD5

Depth :



CERTIFICATE OF ANALYSIS

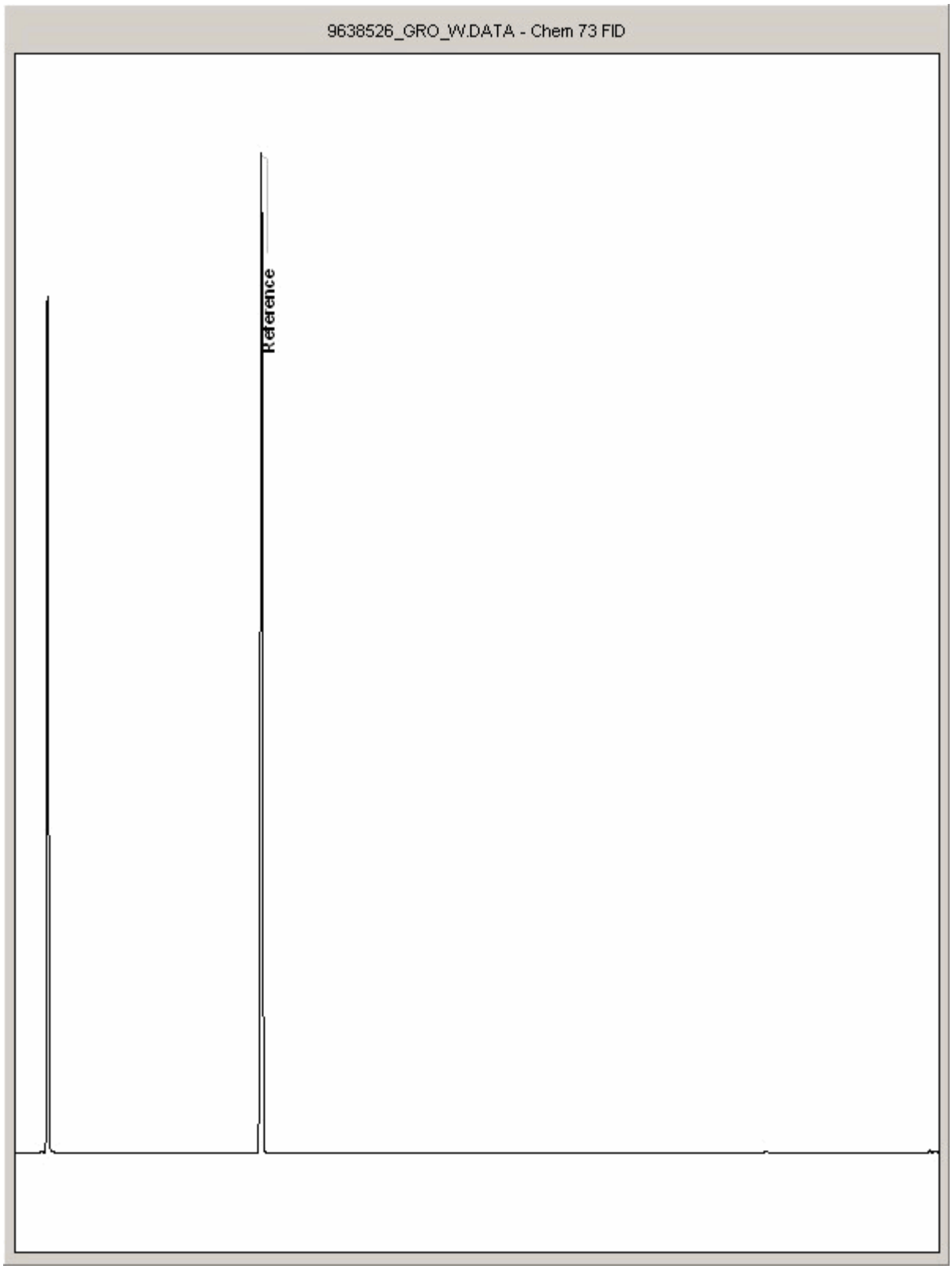
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638526
Sample ID : SW207

Depth :



CERTIFICATE OF ANALYSIS

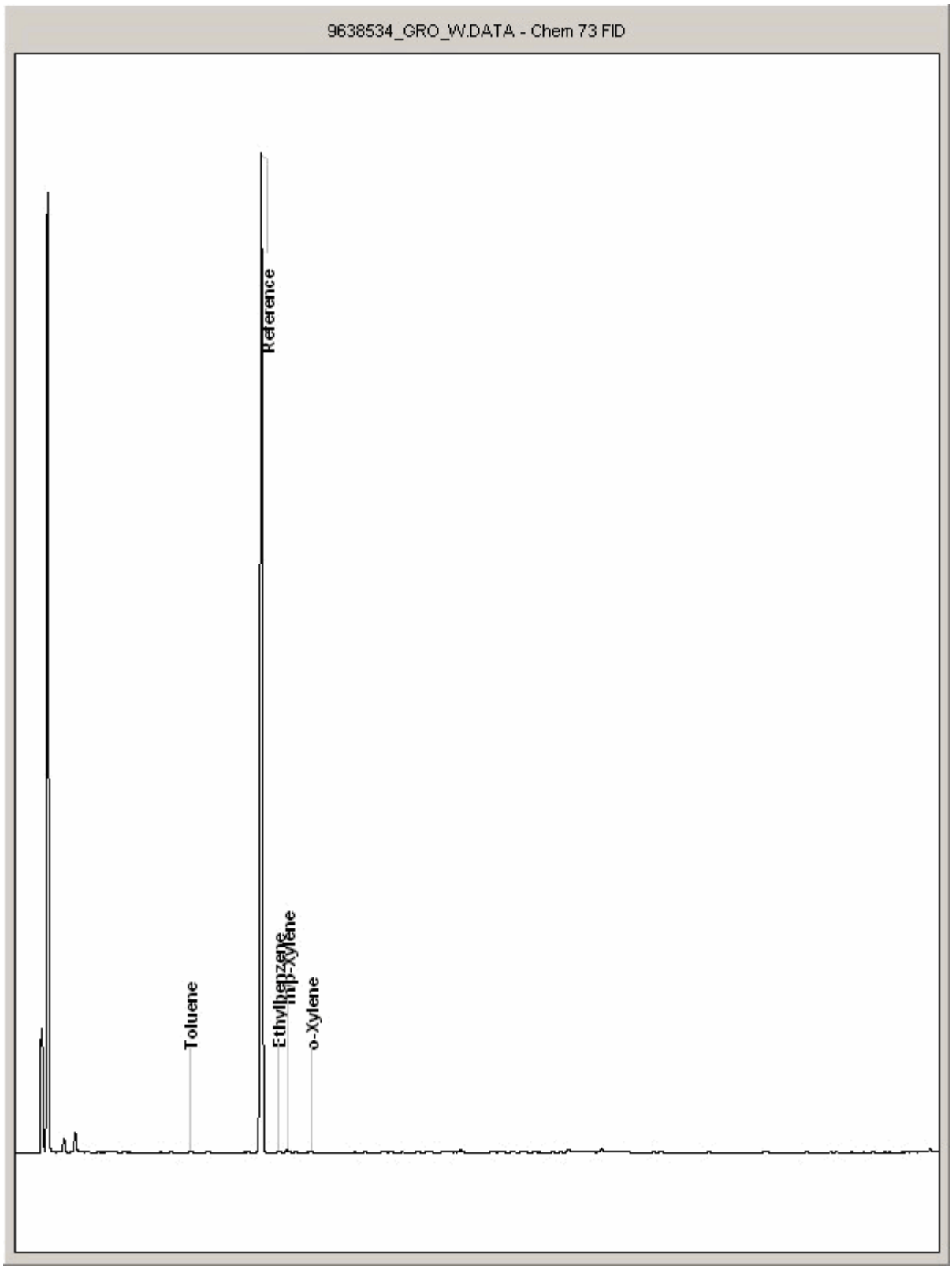
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638534
Sample ID : 1/2 SUMP

Depth :



CERTIFICATE OF ANALYSIS

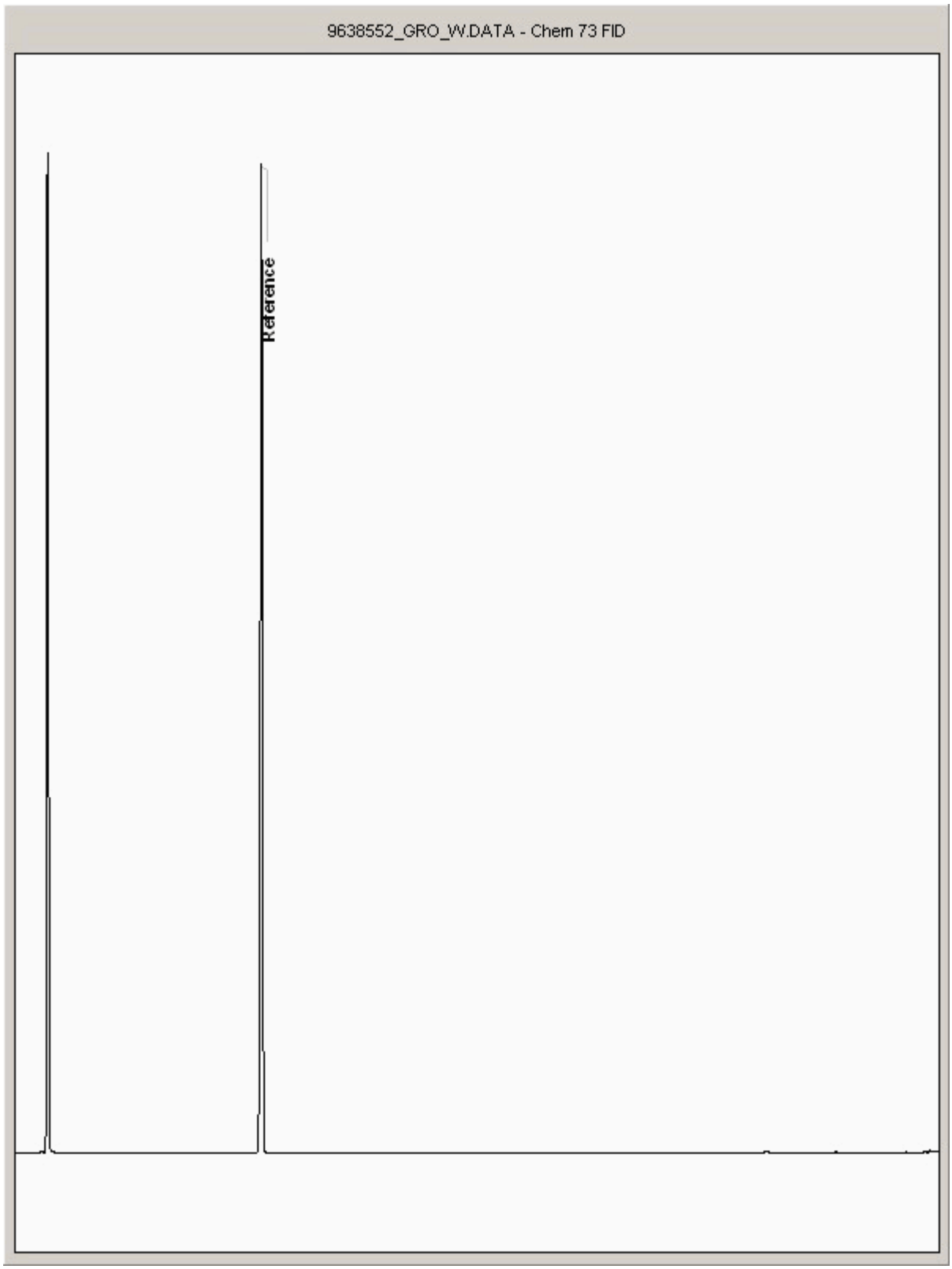
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638552
Sample ID : UD1

Depth :



CERTIFICATE OF ANALYSIS

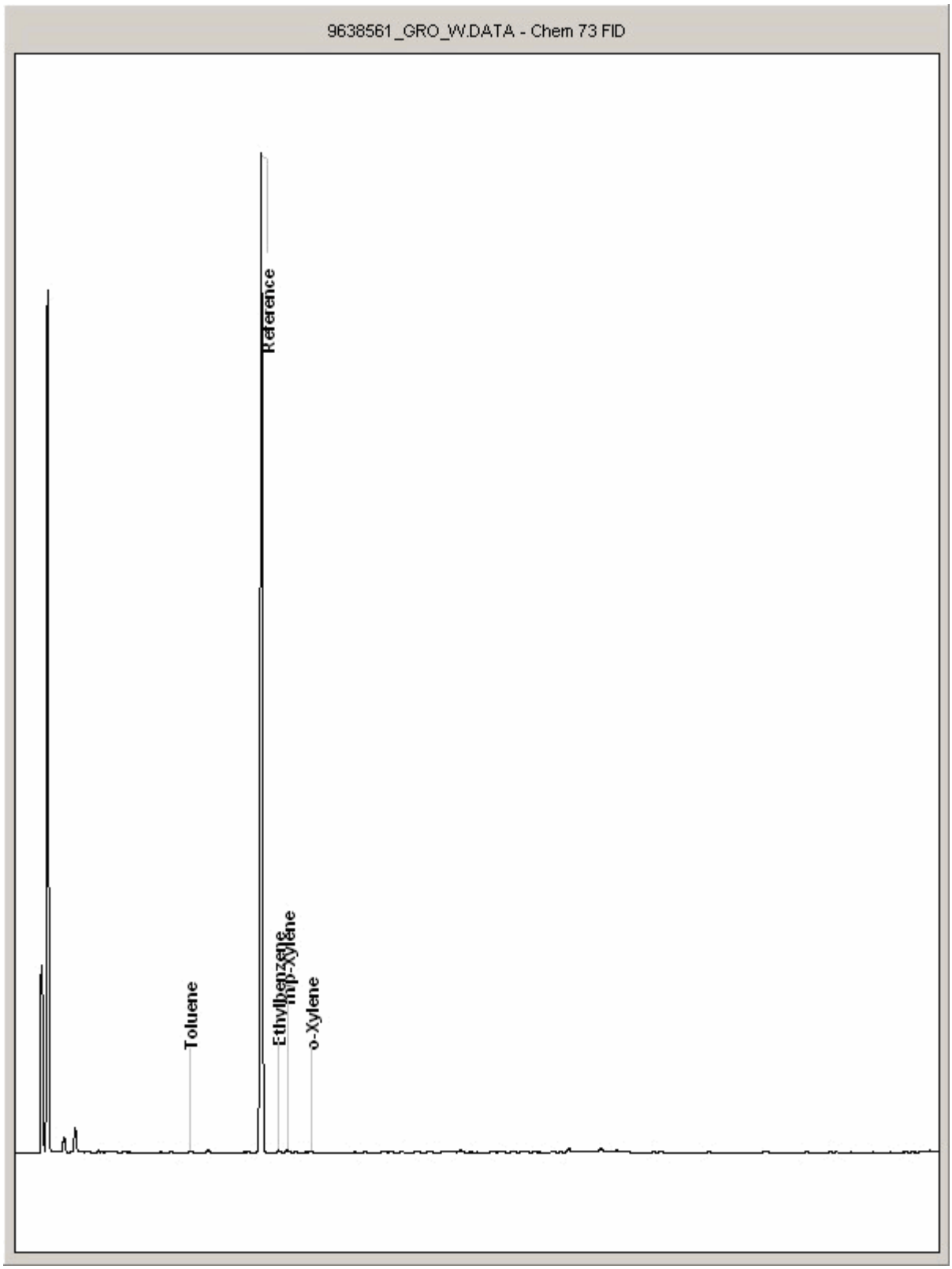
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638561
Sample ID : 3/4 SUMP

Depth :



CERTIFICATE OF ANALYSIS

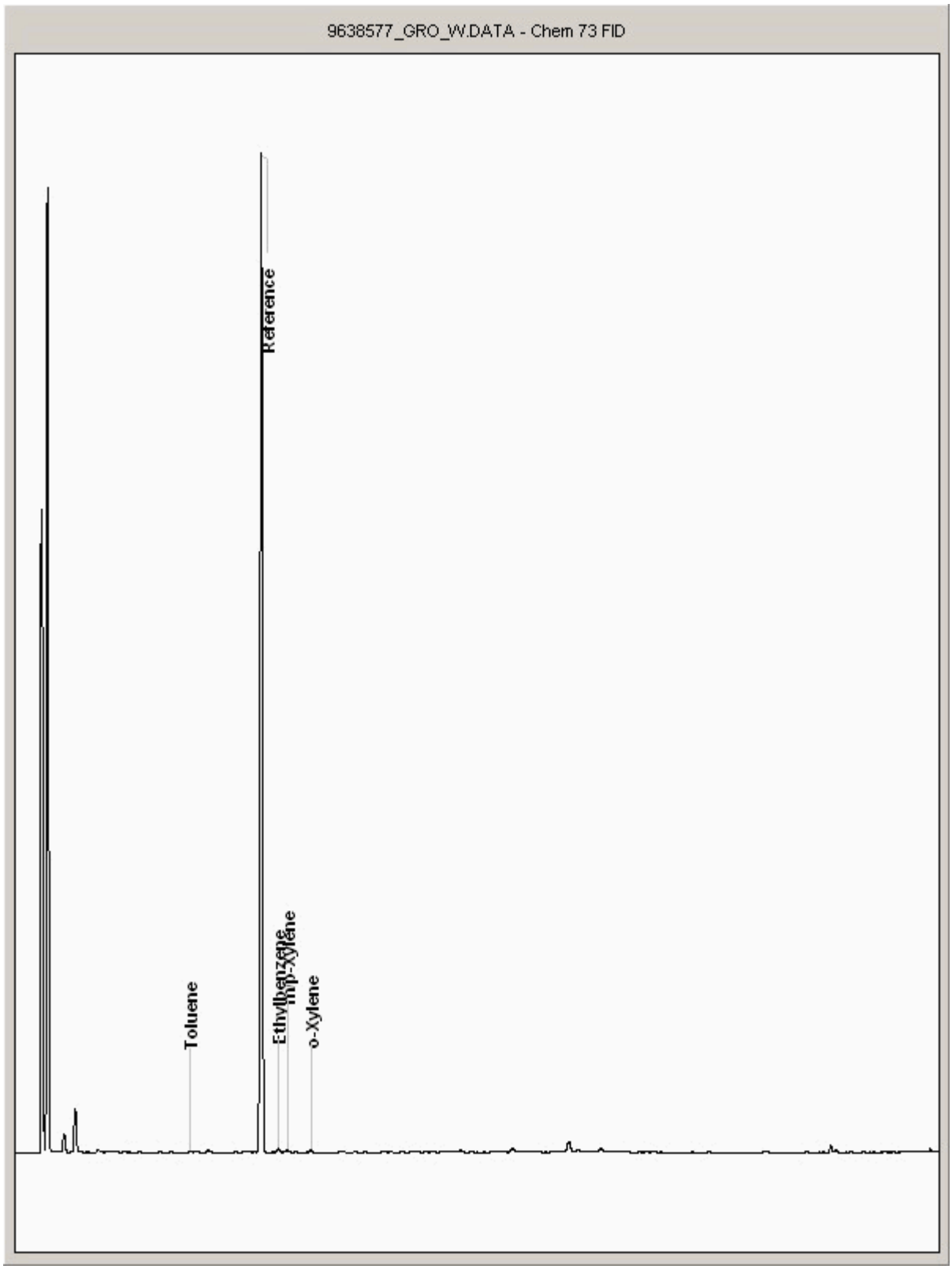
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638577
Sample ID : 5 SUMP

Depth :



CERTIFICATE OF ANALYSIS

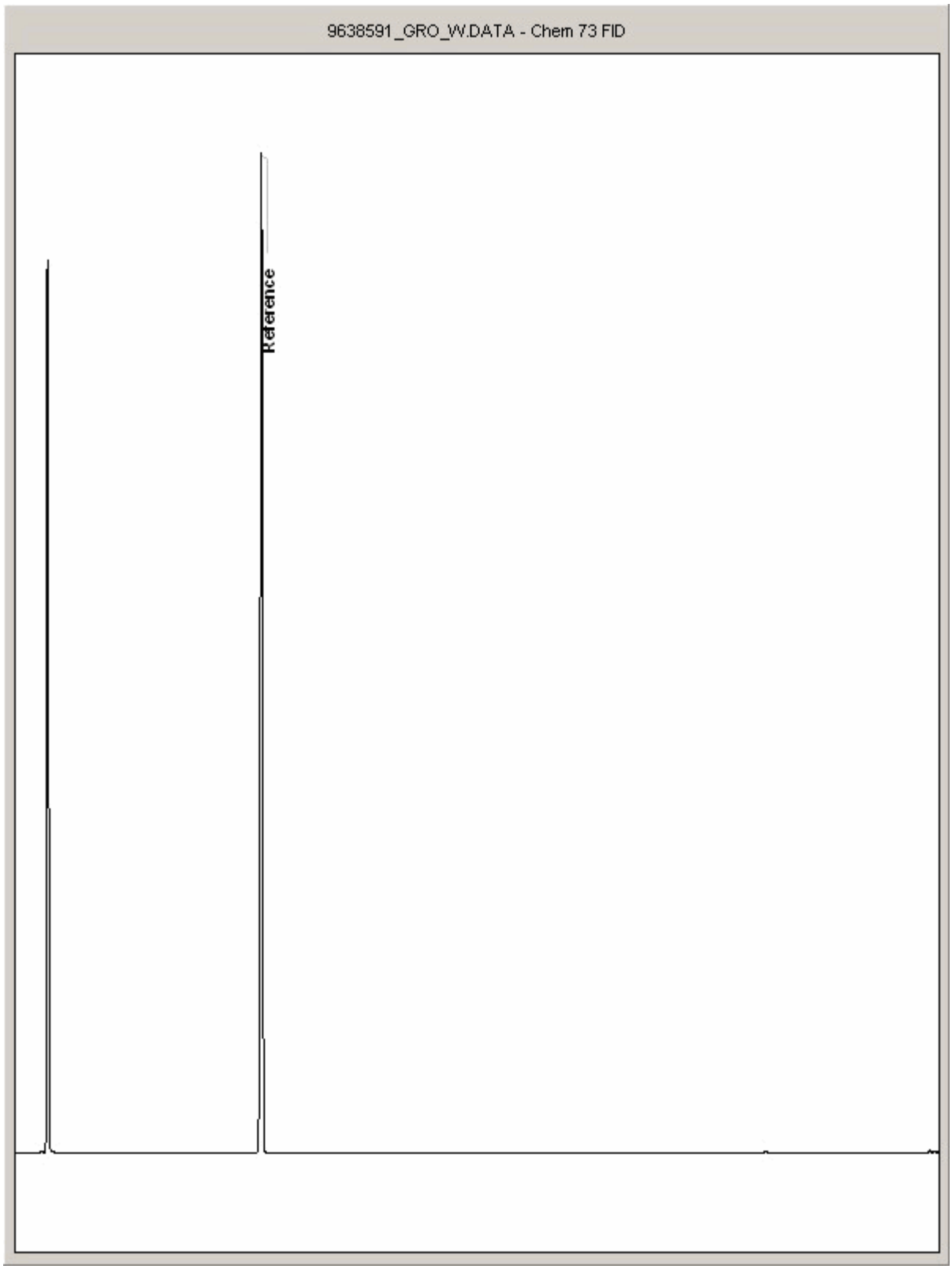
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638591
Sample ID : UD3

Depth :



CERTIFICATE OF ANALYSIS

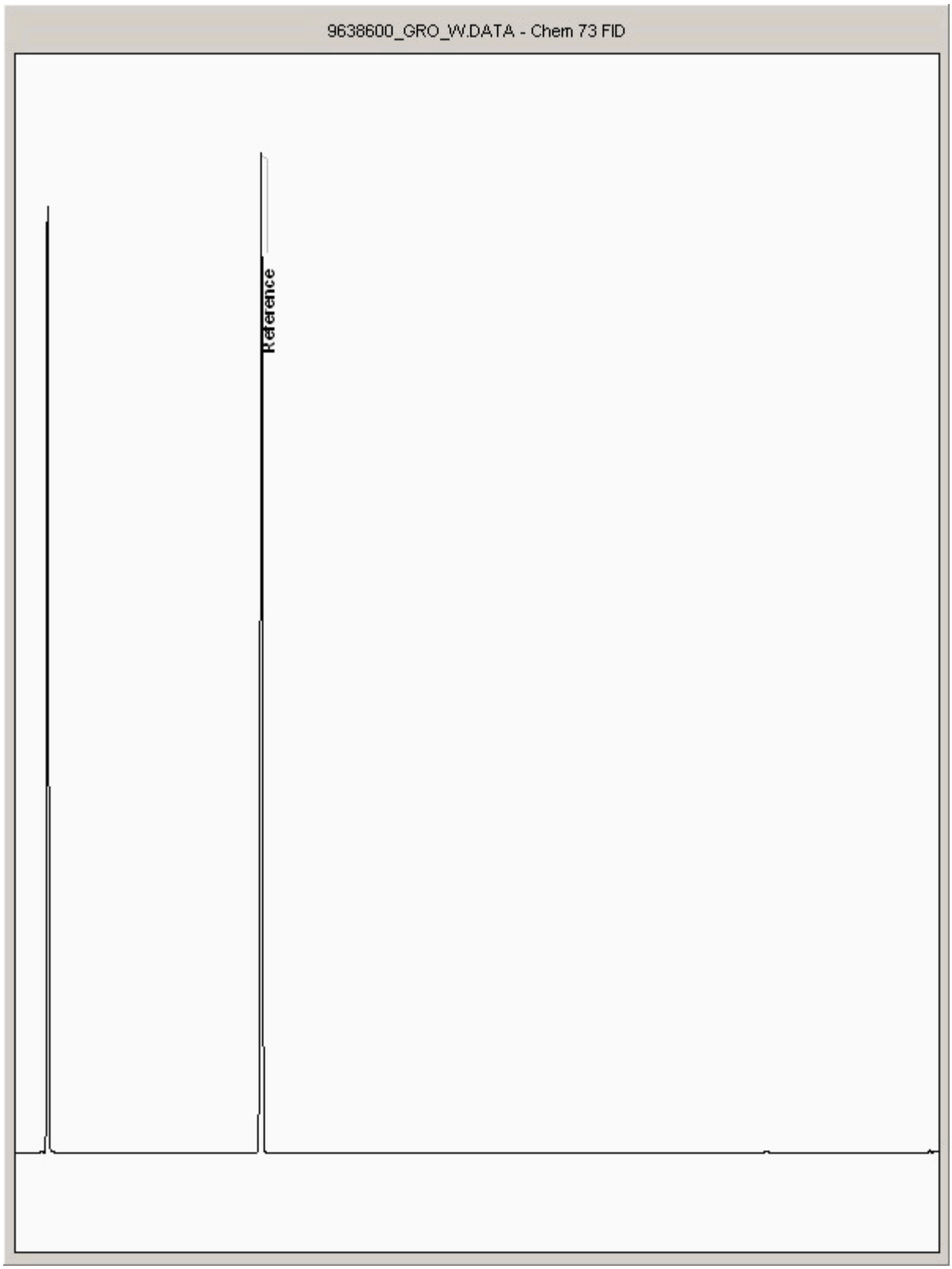
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638600
Sample ID : SW204

Depth :



CERTIFICATE OF ANALYSIS

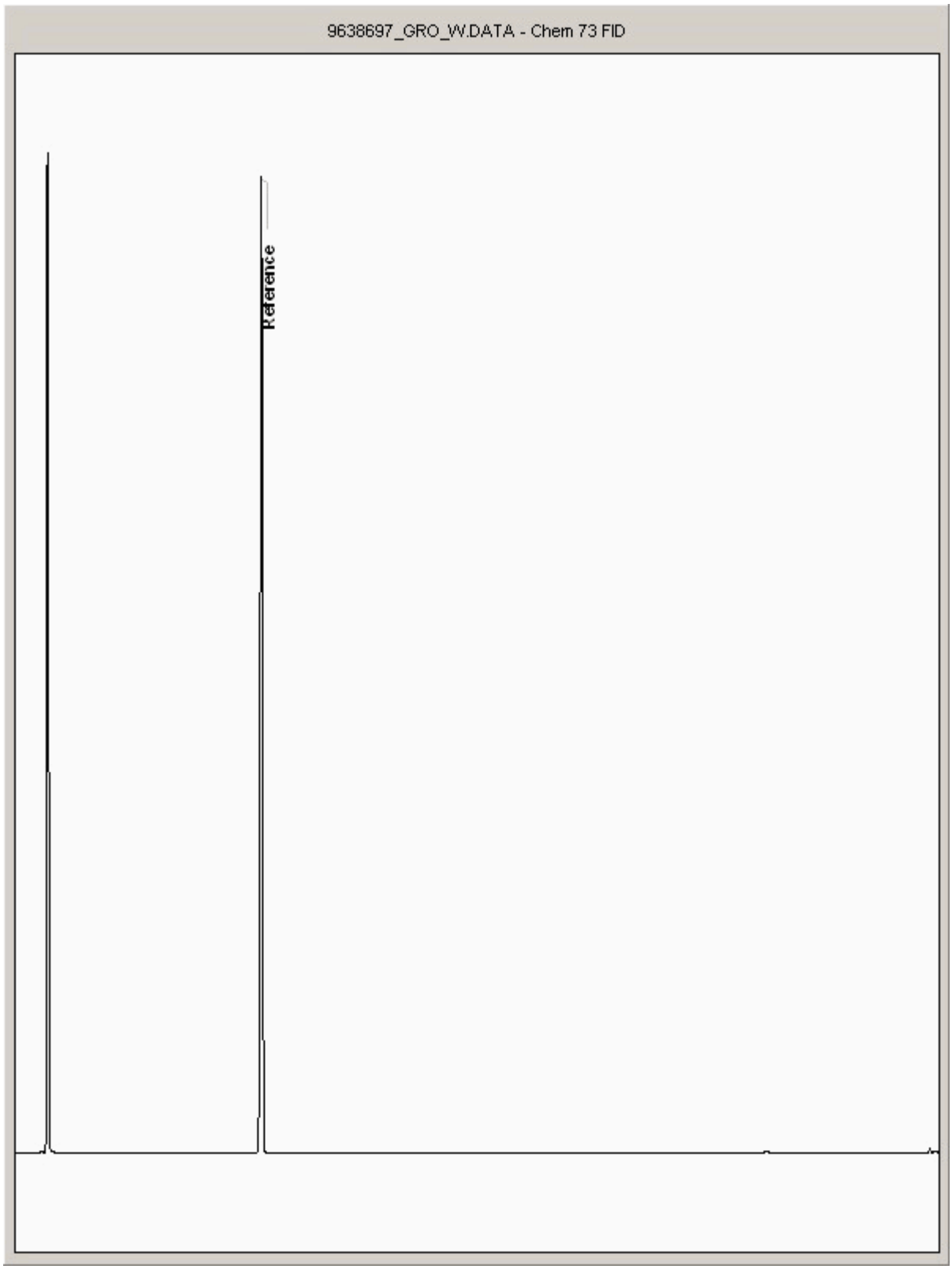
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638697
Sample ID : SW202

Depth :



CERTIFICATE OF ANALYSIS

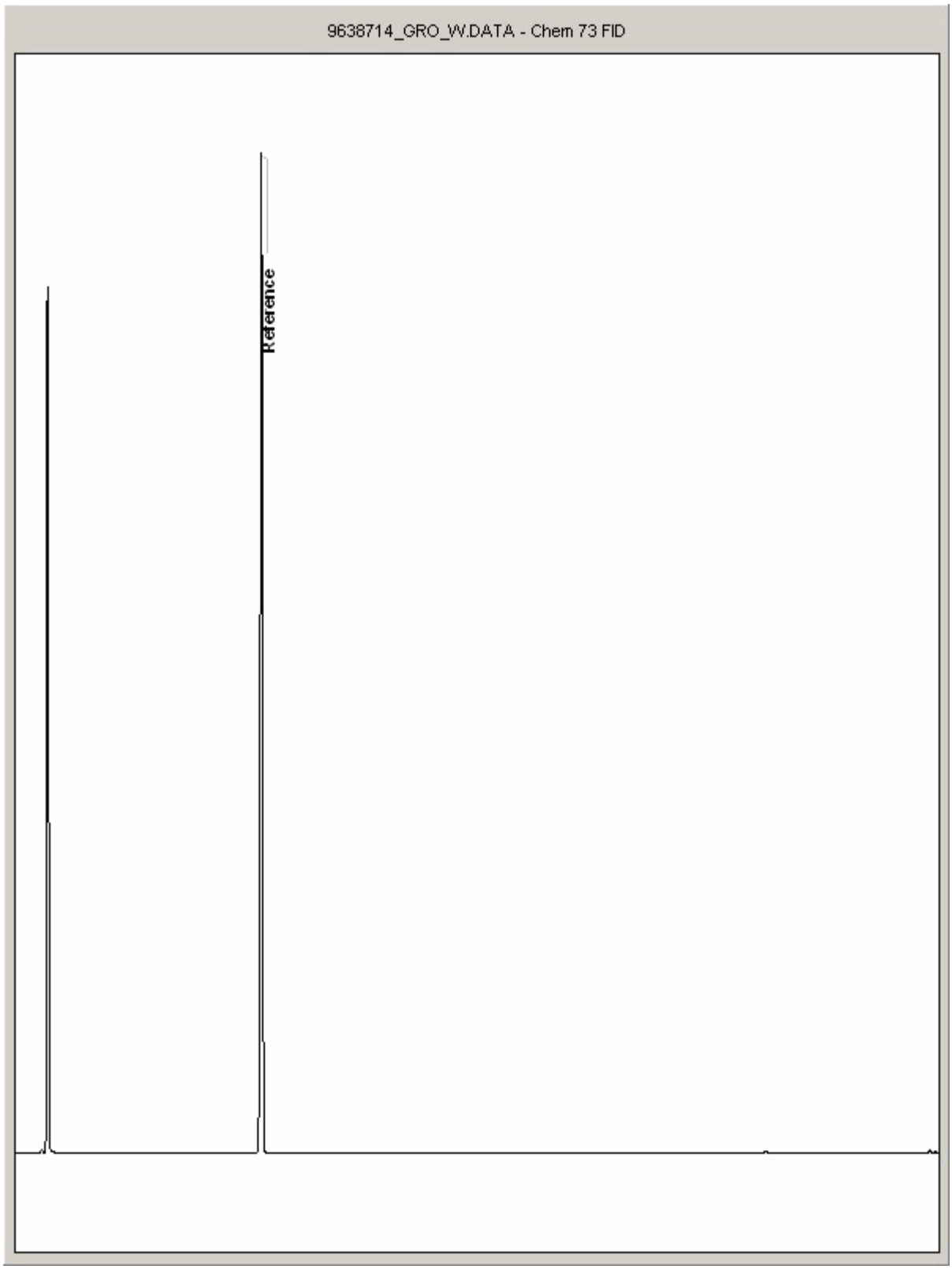
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638714
Sample ID : SW205

Depth :



CERTIFICATE OF ANALYSIS

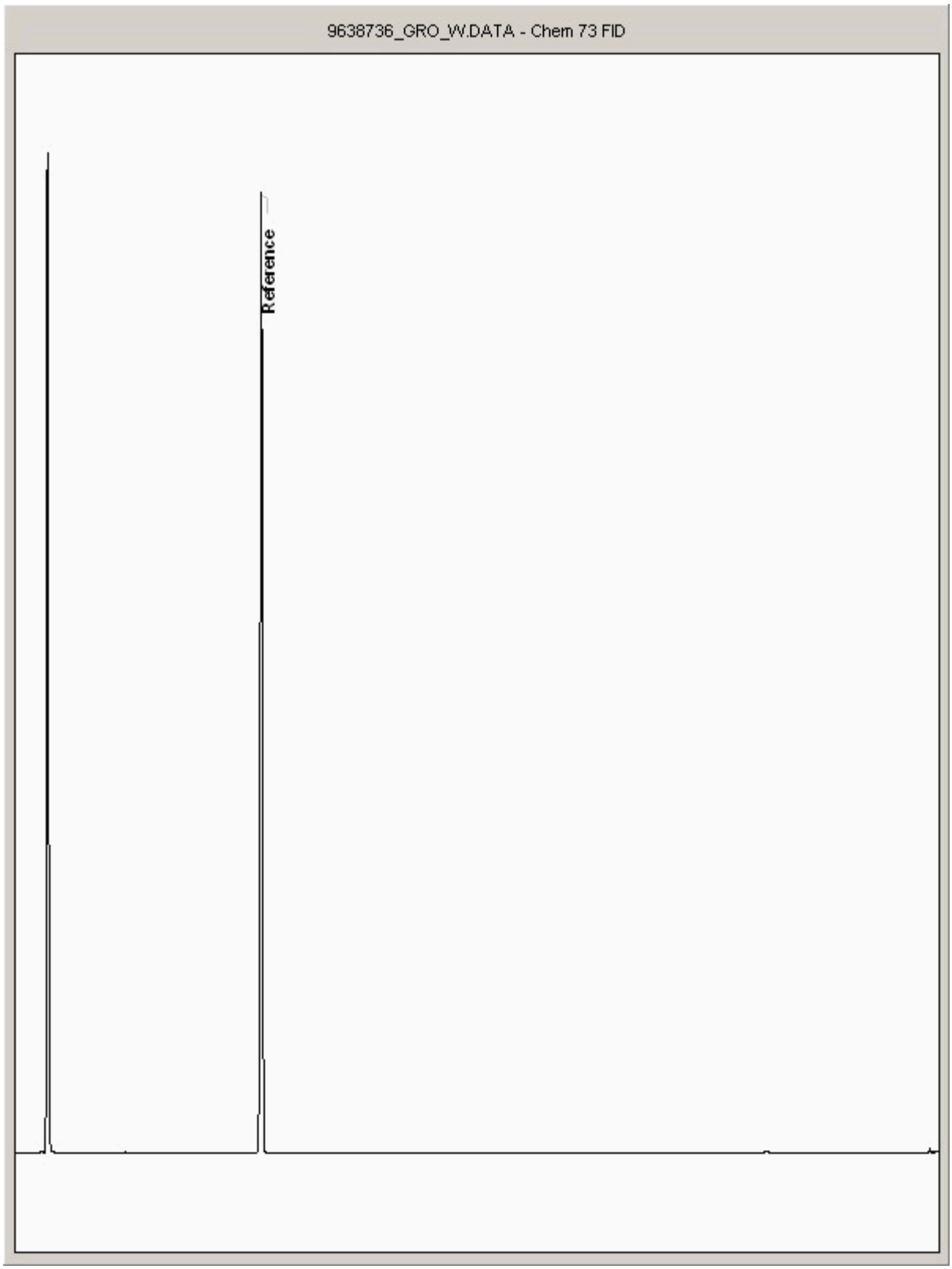
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638736
Sample ID : UD4

Depth :



CERTIFICATE OF ANALYSIS

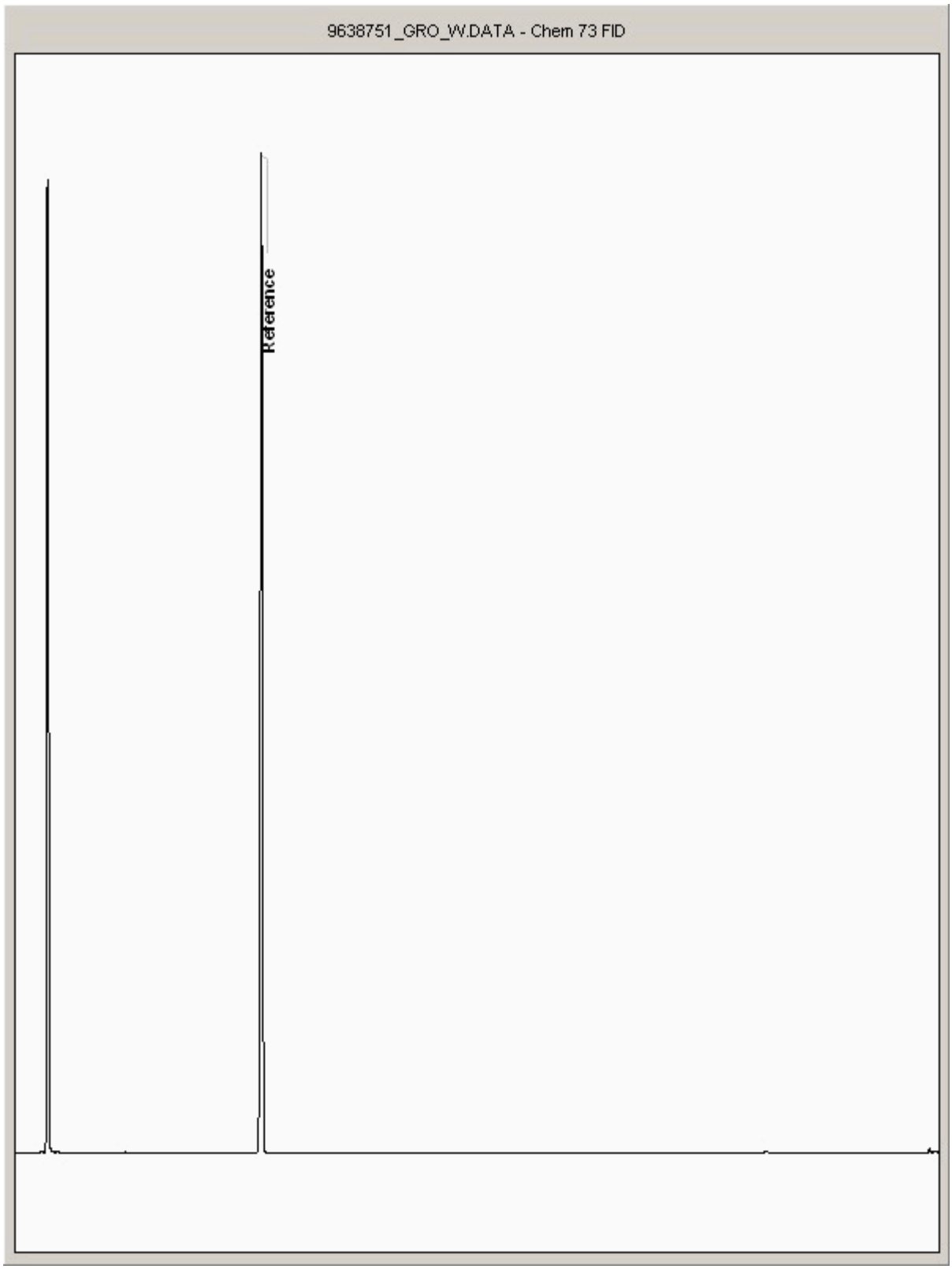
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638751
Sample ID : SW206

Depth :



CERTIFICATE OF ANALYSIS

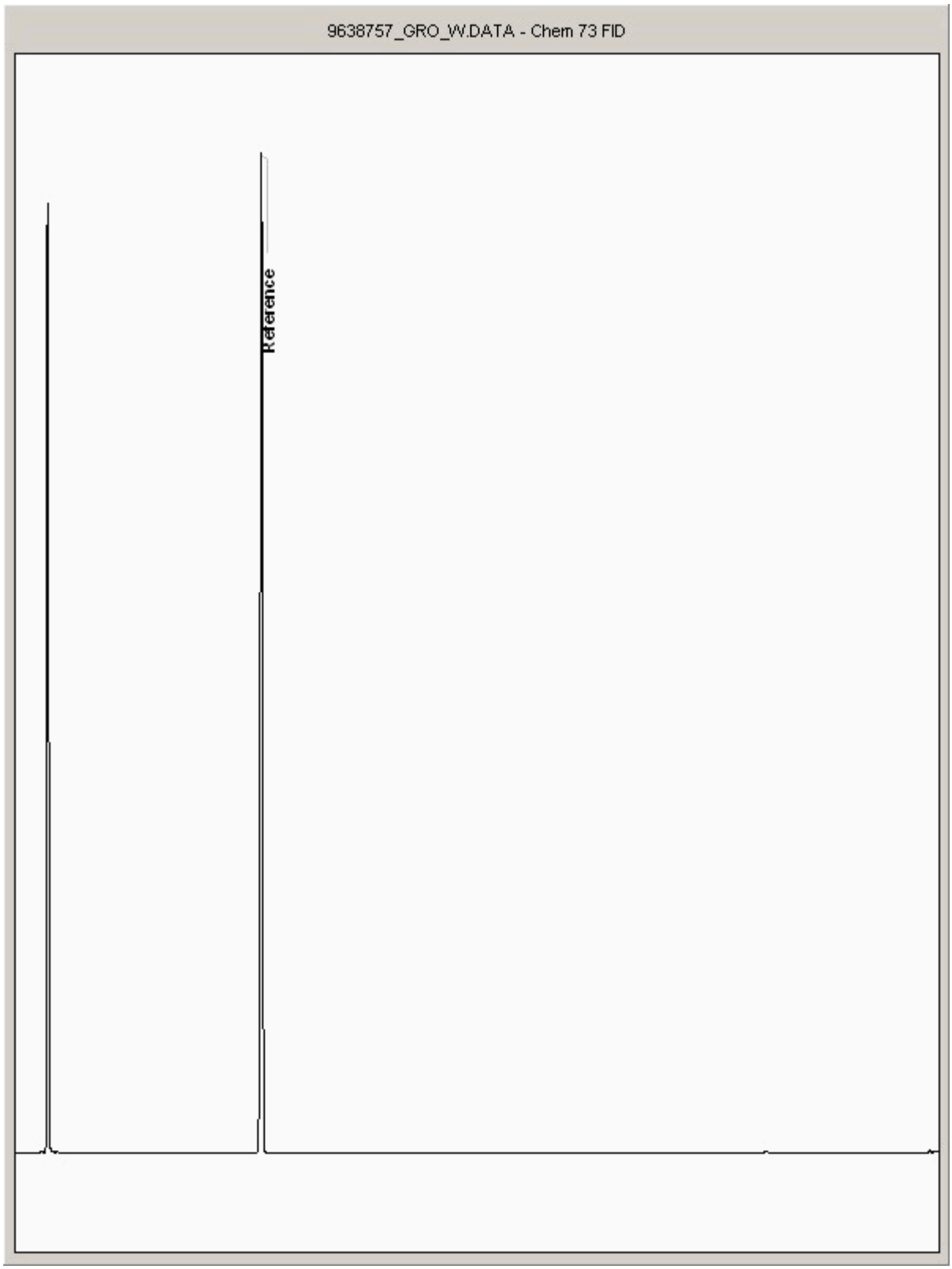
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638757
Sample ID : SW201

Depth :



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA Leach tests, flash point, ammonium as NH4 by the BRE method, VOC TICS, SVOC TICS, TOF-MS SCAN/SEARCH and TOF-MS TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for both soil jars, tubs and volatile jars. All waters and vials will be discarded 10 days after the analysis is completed (e-mailed). All material removed during an asbestos containing material screen and analysed for the presence of asbestos will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be screened in house for the presence of large asbestos containing material fragments/pieces. If no asbestos containing material is found this will be reported as 'no asbestos containing material detected'. If asbestos containing material is detected it will be removed and analysed by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If asbestos containing material is present no further analysis will be undertaken. At no point is the fibre content of the soil sample determined.

7. If no separate volatile sample is supplied by the client, the integrity of the data may be compromised if the laboratory is required to create a sub-sample from the bulk sample -similarly, if a headspace or sediment is present in the volatile sample. This will be flagged up as an invalid VOC on the test schedule or recorded on the log sheet.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. A table containing the date of analysis for each parameter is not routinely included with the report, but is available upon request.

12. Results relate only to the items tested

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 14).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. Our MCERTS accreditation for PAHs by GCMS applies to all product types apart from Kerosene, where naphthalene only is not
accredited.

19. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

20. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

21. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

22. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

23. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials -whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute themajor part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

24. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C4 -C10 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

SOLID MATRICES EXTRACTION SUMMARY

ANALYSIS	D/C OR WET	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
SOLVENT EXTRACTABLE MATTER	D&C	DCM	SOXTHERM	GRAVIMETRIC
CYCLOHEXANE EXT. MATTER	D&C	CYCLOHEXANE	SOXTHERM	GRAVIMETRIC
THIN LAYER CHROMATOGRAPHY	D&C	DCM	SOXTHERM	IATROSCAN
ELEMENTAL SULPHUR	D&C	DCM	SOXTHERM	HPLC
PHENOLS BY GCMS	WET	DCM	SOXTHERM	GCMS
HERBICIDES	D&C	HEXANE:ACETONE	SOXTHERM	GCMS
PESTICIDES	D&C	HEXANE:ACETONE	SOXTHERM	GCMS
EPH (DRO)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH (MIN OIL)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH (CLEANED UP)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH CWG BY GC	D&C	HEXANE:ACETONE	END OVER END	GC-FID
PCB TOT / PCB CON	D&C	HEXANE:ACETONE	END OVER END	GCMS
POLYAROMATIC HYDROCARBONS (MS)	WET	HEXANE:ACETONE	MICROWAVE TM218.	GCMS
C8-C40 (C8-C40) EZ FLASH	WET	HEXANE:ACETONE	SHAKER	GC-EZ
POLYAROMATIC HYDROCARBONS RAPID GC	WET	HEXANE:ACETONE	SHAKER	GC-EZ
SEMI VOLATILE ORGANIC COMPOUNDS	WET	DCM:ACETONE	SONICATE	GCMS

LIQUID MATRICES EXTRACTION SUMMARY

ANALYSIS	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
PAH MS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GCMS
EPH	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
EPH CWG	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
MINERAL OIL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
PCB 7 CONGENERS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GCMS
PCB TOTAL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GCMS
SVOC	DCM	LIQUID/LIQUID SHAKE	GCMS
FREE SULPHUR	DCM	SOLID PHASE EXTRACTION	HPLC
PEST OCP/OPP	DCM	LIQUID/LIQUID SHAKE	GCMS
TRIAZINE HERBS	DCM	LIQUID/LIQUID SHAKE	GCMS
PHENOLS MS	DCM	SOLID PHASE EXTRACTION	GCMS
TPH by INFRARED (IR)	TCE	LIQUID/LIQUID SHAKE	HPLC
MINERAL OIL by IR	TCE	LIQUID/LIQUID SHAKE	HPLC
GLYCOLS	NONE	DIRECT INJECTION	GCMS

Identification of Asbestos in Bulk Materials

The results for asbestos identification for soil samples are obtained from possible Asbestos Containing Material, removed during the 'Screening of soils for Asbestos Containing Materials', which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -
Trace -Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in MDHS 100.

The identification of asbestos containing materials falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Last Updated : 2010/09/08

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	277577
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix
General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before presevation was performed
§	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -
Trace -Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

ALcontrol Laboratories

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CWM Environmental Ltd
Nantyclaws Landfill Site
Llanddarg Road
Carmarthen
Carmarthenshire
SA32 8BG

Attention: Mike Lewis

CERTIFICATE OF ANALYSIS

Date:	24 July 2014
Customer:	H_CWMENV_NAN
Sample Delivery Group (SDG):	140711-36
Your Reference:	
Location:	Phase 2-3
Report No:	278000

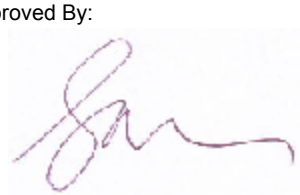
This report has been revised and directly supersedes 277984 in its entirety.

We received 18 samples on Friday July 11, 2014 and 18 of these samples were scheduled for analysis which was completed on Thursday July 24, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:



Sonia McWhan

Operations Manager

ilac-MRA UKAS TESTING 1291

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CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
9599377	LEACHATE HOLDING LAGOON			10/07/2014
9599378	NACW228			08/07/2014
9599380	NACW229			08/07/2014
9599374	5 SUMP			10/07/2014
9599375	6 SUMP			10/07/2014
9599376	7 SUMP			10/07/2014
9599371	1/2 SUMP			10/07/2014
9599373	3/4 SUMP			10/07/2014
9599359	SW201			10/07/2014
9599360	SW202			10/07/2014
9599361	SW204			10/07/2014
9599362	SW205			10/07/2014
9599363	SW206			10/07/2014
9599364	SW207			10/07/2014
9599365	UD1			10/07/2014
9599367	UD3			10/07/2014
9599368	UD4			10/07/2014
9599370	UD5			10/07/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)	9599377	9599378	9599380	9599374	9599375	9599376	9599371	9599373
Customer Sample Reference	LEACHATE HOLDING LAGOON	NACW228	NACW229	5 SUMP	6 SUMP	7 SUMP	1/2 SUMP	3/4 SUMP
AGS Reference								
Depth (m)								
Container	1l Glass bottle (ALE)	1lplastic (ALE221)	250ml BOD (ALE21	H2SO4 (ALE244)	Vial (ALE297)	1l Glass bottle (ALE	1lplastic (ALE221)	H2SO4 (ALE244)	INV VIAL	NaOH (ALE245)	1l Glass bottle (ALE	1lplastic (ALE221)	H2SO4 (ALE244)	INV VIAL	NaOH (ALE245)	1l Glass bottle (ALE	1lplastic (ALE221)	250ml BOD (ALE21	H2SO4 (ALE244)	Vial (ALE297

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
VOC MS (W)	All	NDPs: 0 Tests: 18	9599377	LEACHATE HOLDING LAGOON			1l Glass bottle (ALE
							1lplastic (ALE221)
							250ml BOD (ALE21
							H2SO4 (ALE244)
							Vial (ALE297) X
			9599378	NACW228			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							INV VIAL X
			9599380	NACW229			NaOH (ALE245)
							1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							INV VIAL X
			9599374	5 SUMP			NaOH (ALE245)
							1l Glass bottle (ALE
							1lplastic (ALE221)
							250ml BOD (ALE21
							H2SO4 (ALE244)
							Vial (ALE297) X
			9599375	6 SUMP			1l Glass bottle (ALE
							1lplastic (ALE221)
							250ml BOD (ALE21
							H2SO4 (ALE244)
							Vial (ALE297) X
			9599376	7 SUMP			1l Glass bottle (ALE
							1lplastic (ALE221)
							250ml BOD (ALE21
							H2SO4 (ALE244)
							Vial (ALE297) X
			9599371	1/2 SUMP			1l Glass bottle (ALE
							1lplastic (ALE221)
							250ml BOD (ALE21
							H2SO4 (ALE244)
							Vial (ALE297) X
			9599373	3/4 SUMP			1l Glass bottle (ALE
							1lplastic (ALE221)
							250ml BOD (ALE21
							H2SO4 (ALE244)
							Vial (ALE297) X

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

LIQUID

Results Legend

X Test

N No Determination Possible

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			9599359	SW201			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							INV VIAL
							NaOH (ALE245)
			9599360	SW202			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							INV VIAL
							NaOH (ALE245)
			9599361	SW204			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							INV VIAL
							NaOH (ALE245)
			9599362	SW205			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							INV VIAL
							NaOH (ALE245)
			9599363	SW206			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							INV VIAL
							NaOH (ALE245)
			9599364	SW207			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							INV VIAL
							NaOH (ALE245)
			9599365	UD1			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							INV VIAL
							NaOH (ALE245)
			9599367	UD3			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							INV VIAL
							NaOH (ALE245)
Acid Herbicides by LCQQQ (aq)	All	NDPs: 0 Tests: 18	X			X			X			X			X			X			X			X			X			X		
Alkalinity as CaCO3	All	NDPs: 0 Tests: 18		X			X			X			X			X			X			X			X			X			X	
Alkalinity Filtered as CaCO3	All	NDPs: 0 Tests: 6		X			X			X			X			X			X													
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 18			X			X			X			X			X			X			X			X			X			X
Anions by Kone (w)	All	NDPs: 0 Tests: 18		X			X			X			X			X			X			X			X			X			X	
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 18		X			X			X			X			X			X			X			X			X			X	
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 18		X			X			X			X			X			X			X			X			X			X	
EPH (DRO) (C10-C40) Aqueous (W)	All	NDPs: 0 Tests: 18	X			X			X			X			X			X			X			X			X			X		
GRO by GC-FID (W)	All	NDPs: 0 Tests: 18			X			X			X			X			X			X			X			X			X			X
Ionic Balance	All	NDPs: 0 Tests: 6		X			X			X			X			X			X													
Metals by iCap-OES Dissolved (W)	All	NDPs: 0 Tests: 18		X			X			X			X			X			X			X			X			X			X	
Nitrite by Kone (w)	All	NDPs: 0 Tests: 12			X			X			X			X			X			X			X			X			X			X
pH Value	All	NDPs: 0 Tests: 6		X			X			X			X			X			X													
Suspended Solids	All	NDPs: 0 Tests: 6		X			X			X			X			X			X													
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 18	X			X			X			X			X			X			X			X			X			X		

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			9599359	SW201			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							INV VIAL
							NaOH (ALE245)
			9599360	SW202			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							INV VIAL
							NaOH (ALE245)
			9599361	SW204			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							INV VIAL
							NaOH (ALE245)
			9599362	SW205			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							INV VIAL
							NaOH (ALE245)
			9599363	SW206			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							INV VIAL
							NaOH (ALE245)
			9599364	SW207			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							INV VIAL
							NaOH (ALE245)
			9599365	UD1			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							INV VIAL
							NaOH (ALE245)
			9599367	UD3			1l Glass bottle (ALE
							1lplastic (ALE221)
							H2SO4 (ALE244)
							INV VIAL
							NaOH (ALE245)
Total EPH (aq)	All	NDPs: 0 Tests: 18	X				X
Total Organic and Inorganic Carbon	All	NDPs: 0 Tests: 12	X				X
VOC MS (W)	All	NDPs: 0 Tests: 18		X			X

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)									
								9599368				9599370
			Customer Sample Reference					UD4				UD5
			AGS Reference									
			Depth (m)									
			Container	1l Glass bottle (ALE	1lplastic (ALE221)	H2SO4 (ALE244)	INV VIAL	NaOH (ALE245)	1l Glass bottle (ALE	1lplastic (ALE221)	H2SO4 (ALE244)	INV VIAL	NaOH (ALE245)
Acid Herbicides by LCQQQ (aq)	All	NDPs: 0 Tests: 18		X					X				
Alkalinity as CaCO3	All	NDPs: 0 Tests: 18			X					X			
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 18				X					X		
Anions by Kone (w)	All	NDPs: 0 Tests: 18			X					X			
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 18			X					X			
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 18			X					X			
EPH (DRO) (C10-C40) Aqueous (W)	All	NDPs: 0 Tests: 18		X					X				
GRO by GC-FID (W)	All	NDPs: 0 Tests: 18					X					X	
Metals by iCap-OES Dissolved (W)	All	NDPs: 0 Tests: 18			X					X			
Nitrite by Kone (w)	All	NDPs: 0 Tests: 12						X					X
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 18		X					X				
Total EPH (aq)	All	NDPs: 0 Tests: 18		X					X				
VOC MS (W)	All	NDPs: 0 Tests: 18					X					X	

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	LEACHATE HOLDING LAGOON	NACW228	NACW229	5 SUMP	6 SUMP	7 SUMP
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	08/07/2014	08/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599377	9599378	9599380	9599374	9599375	9599376
			AGS Reference						
Alkalinity, Total as CaCO3	<2 mg/l	TM043		7920 #	160 #	75 #	6920 #	7880 #	7340 #
BOD, unfiltered	<1 mg/l	TM045		225 #			328 #	240 #	131 #
Organic Carbon, Total	<3 mg/l	TM090		43 #			676 #	1010 #	1220 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		1540 #	0.243 #	<0.2 #	1650 #	1490 #	1450 #
COD, unfiltered	<7 mg/l	TM107		3170 #			2690 #	3290 #	3490 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		19.5 #	0.344 #	0.202 #	24.8 #	19.3 #	19.2 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		0.321 #	<0.1 #	<0.1 #	0.279 #	0.272 #	<1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		343 #	1.34 #	0.705 #	139 #	335 #	722 #
Copper (diss.filt)	<0.85 µg/l	TM152		7.91 #	<0.85 #	1.33 #	5.57 #	9.16 #	99.2 #
Lead (diss.filt)	<0.02 µg/l	TM152		3.21 #	<0.02 #	<0.02 #	1.44 #	3.89 #	34.5 #
Manganese (diss.filt)	<0.04 µg/l	TM152		744 #	0.278 #	0.193 #	832 #	744 #	661 #
Nickel (diss.filt)	<0.15 µg/l	TM152		204 #	0.915 #	0.682 #	164 #	205 #	276 #
Zinc (diss.filt)	<0.41 µg/l	TM152		95.7 #	<0.41 #	0.575 #	38.5 #	117 #	550 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		3860 #	<46 #	<46 #	3150 #	3670 #	3220 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		4030	<100	<100	3330	3820	3220
Nitrite as NO2	<0.05 mg/l	TM184			<0.05 #	<0.05 #			
Sulphate	<2 mg/l	TM184		<40 #	18.7 #	18 #	<40 #	<40 #	<40 #
Chloride	<2 mg/l	TM184		3320 #	20.1 #	15.3 #	6470 #	3420 #	3320 #
Nitrate as NO3	<0.3 mg/l	TM184			4.72 #	3.18 #			
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		<2 #	1.07 #	0.722 #	<2 #	<2 #	99.5 #
Calcium (diss.filt)	<0.012 mg/l	TM228		114 #	54.9 #	29.5 #	126 #	119 #	129 #
Sodium (diss.filt)	<0.076 mg/l	TM228		2510 #	10.6 #	7.72 #	3050 #	2490 #	2440 #
Magnesium (diss.filt)	<0.036 mg/l	TM228		89.9 #	6.21 #	3.47 #	100 #	93.5 #	81.2 #
Potassium (diss.filt)	<1 mg/l	TM228		1260 #	<1 #	1.19 #	1890 #	1290 #	1390 #
Iron (diss.filt)	<0.019 mg/l	TM228		4.74 #	<0.019 #	<0.019 #	8.06 #	4.71 #	8.38 #
MCPP (Mecoprop)	<0.04 µg/l	TM324		50.7	<0.04	<0.04	25.6	50.3	43

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	1/2 SUMP	3/4 SUMP	SW201	SW202	SW204	SW205
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599371	9599373	9599359	9599360	9599361	9599362
			AGS Reference						
Ionic balance	% Diff	Calulation				-4.08	13.3	-5.66	-4.76
Suspended solids, Total	<2 mg/l	TM022				4 #	754 #	6 #	2 #
Alkalinity, Total as CaCO3	<2 mg/l	TM043		6020 #	7680 #	55 #	175 #	85 #	175 #
Alkalinity,Total as CaCO3 (diss.filt)	<2 mg/l	TM043				55	70	90	175
Alkalinity, Bicarbonate as CaCO3 (diss.filt)	<2 mg/l	TM043				55	70	90	175
BOD, unfiltered	<1 mg/l	TM045		182 #	245 #				
Organic Carbon, Total	<3 mg/l	TM090		890 #	1110 #	4.71 #	<3 #	4.09 #	<3 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		1180 #	1360 #	0.266 #	0.3 #	<0.2 #	0.699 #
COD, unfiltered	<7 mg/l	TM107		2650 #	3140 #				
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		15.2 #	19.1 #	0.168 #	0.295 #	0.274 #	0.383 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		78.5 #	129 #	0.717 #	0.982 #	0.813 #	1.06 #
Copper (diss.filt)	<0.85 µg/l	TM152		3.03 #	2.73 #	4.56 #	1.18 #	4.73 #	2.54 #
Lead (diss.filt)	<0.02 µg/l	TM152		1.05 #	0.938 #	0.11 #	0.028 #	0.104 #	0.06 #
Manganese (diss.filt)	<0.04 µg/l	TM152		167 #	292 #	0.949 #	51.2 #	14.4 #	122 #
Nickel (diss.filt)	<0.15 µg/l	TM152		48.2 #	80.1 #	1.27 #	0.827 #	1.17 #	1.39 #
Zinc (diss.filt)	<0.41 µg/l	TM152		36.4 #	57.8 #	40.2 #	1.04 #	4.06 #	5.82 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		2920 #	3480 #	<46 #	96.8 #	<46 #	<46 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		3040	3630	<100	<100	<100	<100
Nitrite as NO2	<0.05 mg/l	TM184				<0.05 #	<0.05 #	<0.05 #	<0.05 #
Sulphate	<2 mg/l	TM184		<40 #	<40 #	3.2 #	18.3 #	25.6 #	18.2 #
Chloride	<2 mg/l	TM184		2690 #	3370 #	18 #	19.4 #	25.2 #	22.2 #
Nitrate as NO3	<0.3 mg/l	TM184				1.67 #	4.31 #	3.01 #	5.16 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		<2 #	<2 #	0.381 #	0.982 #	0.687 #	1.18 #
Calcium (diss.filt)	<0.012 mg/l	TM228		96.2 #	117 #	16.5 #	44.1 #	33.3 #	59.8 #
Sodium (diss.filt)	<0.076 mg/l	TM228		1910 #	2440 #	9.99 #	10.1 #	12.7 #	12 #
Magnesium (diss.filt)	<0.036 mg/l	TM228		72 #	91 #	1.9 #	4.94 #	4.79 #	6.06 #
Potassium (diss.filt)	<1 mg/l	TM228		989 #	1300 #	5.32 #	2.67 #	5.95 #	4.51 #
Iron (diss.filt)	<0.019 mg/l	TM228		3.78 #	3.91 #	0.0814 #	<0.019 #	0.0268 #	0.0282 #
pH	<1 pH Units	TM256				7.79 #	8.14 #	8.05 #	8.31 #
MCPP (Mecoprop)	<0.04 µg/l	TM324		42.5	51.8	<0.04	<0.04	<0.04	<0.04

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW206	SW207	UD1	UD3	UD4	UD5
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599363	9599364	9599365	9599367	9599368	9599370
			AGS Reference						
Ionic balance	% Diff	Calulation		-4.66	-19.6				
Suspended solids, Total	<2 mg/l	TM022		4.5 #	9.5 #				
Alkalinity, Total as CaCO3	<2 mg/l	TM043		60 #	100 #	165 #	115 #	195 #	145 #
Alkalinity,Total as CaCO3 (diss.filt)	<2 mg/l	TM043		60	100				
Alkalinity, Bicarbonate as CaCO3 (diss.filt)	<2 mg/l	TM043		60	100				
Organic Carbon, Total	<3 mg/l	TM090		6.31 #	5.79 #				
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.159 #	0.3 #	0.275 #	0.233 #	0.422 #	0.268 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		0.561 #	0.927 #	0.958 #	1.15 #	1.18 #	1.44 #
Copper (diss.filt)	<0.85 µg/l	TM152		<0.85 #	4.1 #	<0.85 #	2.64 #	0.952 #	<0.85 #
Lead (diss.filt)	<0.02 µg/l	TM152		<0.02 #	0.14 #	<0.02 #	<0.02 #	<0.02 #	<0.02 #
Manganese (diss.filt)	<0.04 µg/l	TM152		1.01 #	16.5 #	0.15 #	35 #	74.6 #	24.5 #
Nickel (diss.filt)	<0.15 µg/l	TM152		0.661 #	1.58 #	0.815 #	0.954 #	1.23 #	0.885 #
Zinc (diss.filt)	<0.41 µg/l	TM152		40.3 #	3.62 #	<0.41 #	5.4 #	1.25 #	1.64 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		<46 #	<46 #	<46 #	<46 #	147 #	<46 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		<100	<100	<100	<100	147	<100
Nitrite as NO2	<0.05 mg/l	TM184		<0.05 #	0.051 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #
Sulphate	<2 mg/l	TM184		<2 #	28.7 #	16.7 #	7.5 #	19.6 #	<2 #
Chloride	<2 mg/l	TM184		19.5 #	29.4 #	16.2 #	10.5 #	25.2 #	9.4 #
Nitrate as NO3	<0.3 mg/l	TM184		<0.3 #	1.51 #	4.5 #	2.37 #	6.08 #	2.5 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		<0.1 #	0.357 #	1.02 #	0.538 #	1.38 #	0.569 #
Calcium (diss.filt)	<0.012 mg/l	TM228		15.7 #	36.1 #	43.9 #	40.1 #	69.1 #	51 #
Sodium (diss.filt)	<0.076 mg/l	TM228		11.4 #	14.3 #	8.64 #	5.96 #	14.9 #	6.36 #
Magnesium (diss.filt)	<0.036 mg/l	TM228		1.77 #	5.44 #	4.83 #	2.91 #	7.97 #	3.41 #
Potassium (diss.filt)	<1 mg/l	TM228		6.65 #	7.39 #	1.22 #	<1 #	5.22 #	<1 #
Iron (diss.filt)	<0.019 mg/l	TM228		0.154 #	0.0324 #	<0.019 #	<0.019 #	<0.019 #	<0.019 #
pH	<1 pH Units	TM256		7.58 #	7.83 #				
MCPP (Mecoprop)	<0.04 µg/l	TM324		<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	LEACHATE HOLDING LAGOON	NACW228	NACW229	5 SUMP	6 SUMP	7 SUMP
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	08/07/2014	08/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599377	9599378	9599380	9599374	9599375	9599376
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 1 #	<3 1 #	<3 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		<7 #	<7 1 #	<7 1 #	<7 #	<7 #	<7 #
Toluene	<4 µg/l	TM245		6 #	<4 1 #	<4 1 #	<4 #	5 #	5 #
Ethylbenzene	<5 µg/l	TM245		7 #	<5 1 #	<5 1 #	10 #	7 #	<5 #
m,p-Xylene	<8 µg/l	TM245		11 #	<8 1 #	<8 1 #	9 #	10 #	<8 #
o-Xylene	<3 µg/l	TM245		6 #	<3 1 #	<3 1 #	6 #	6 #	<3 #
Sum of detected BTEX	<28 µg/l	TM245		30	<28 1	<28 1	<28	28	<28
EPH (C6-C10)	<100 µg/l	TM245		172	<100 1	<100 1	177	151	<100

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
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1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	1/2 SUMP	3/4 SUMP	SW201	SW202	SW204	SW205
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599371	9599373	9599359	9599360	9599361	9599362
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #
Benzene	<7 µg/l	TM245		<7 #	<7 #	<7 1 #	<7 1 #	<7 1 #	<7 1 #
Toluene	<4 µg/l	TM245		4 #	5 #	<4 1 #	<4 1 #	<4 1 #	<4 1 #
Ethylbenzene	<5 µg/l	TM245		5 #	7 #	<5 1 #	<5 1 #	<5 1 #	<5 1 #
m,p-Xylene	<8 µg/l	TM245		8 #	10 #	<8 1 #	<8 1 #	<8 1 #	<8 1 #
o-Xylene	<3 µg/l	TM245		4 #	5 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	<28 1	<28 1	<28 1	<28 1
EPH (C6-C10)	<100 µg/l	TM245		121	147	<100 1	<100 1	<100 1	<100 1

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
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tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW206	SW207	UD1	UD3	UD4	UD5
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599363	9599364	9599365	9599367	9599368	9599370
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 1 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #
Benzene	<7 µg/l	TM245		<7 1 #	<7 1 #	<7 1 #	<7 1 #	<7 1 #	<7 1 #
Toluene	<4 µg/l	TM245		<4 1 #	<4 1 #	<4 1 #	<4 1 #	<4 1 #	<4 1 #
Ethylbenzene	<5 µg/l	TM245		<5 1 #	<5 1 #	<5 1 #	<5 1 #	<5 1 #	<5 1 #
m,p-Xylene	<8 µg/l	TM245		<8 1 #	<8 1 #	<8 1 #	<8 1 #	<8 1 #	<8 1 #
o-Xylene	<3 µg/l	TM245		<3 1 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #
Sum of detected BTEX	<28 µg/l	TM245		<28 1	<28 1	<28 1	<28 1	<28 1	<28 1
EPH (C6-C10)	<100 µg/l	TM245		<100 1	<100 1	<100 1	<100 1	<100 1	<100 1

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	LEACHATE HOLDING LAGOON	NACW228	NACW229	5 SUMP	6 SUMP	7 SUMP
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	08/07/2014	08/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599377	9599378	9599380	9599374	9599375	9599376
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<2	<1	<1	<8	<8	<5
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
2-Methylphenol (aq)	<1 µg/l	TM176		4.99 #	<1 #	<1 #	<8 #	9.59 #	<5 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<2	<1	<1	<8	<8	<5
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
4-Methylphenol (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<2	<1	<1	<8	<8	<5
Azobenzene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Acenaphthylene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Acenaphthene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Anthracene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		14.3 #	<2 #	<2 #	18.3 #	41.2 #	20.8 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	LEACHATE HOLDING LAGOON	NACW228	NACW229	5 SUMP	6 SUMP	7 SUMP
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	08/07/2014	08/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599377	9599378	9599380	9599374	9599375	9599376
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Carbazole (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Chrysene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Dibenzofuran (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<10 #	<5 #	<5 #	<40 #	<40 #	<25 #
Fluoranthene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Fluorene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<2	<1	<1	<8	<8	<5
Phenol (aq)	<1 µg/l	TM176		4.07	<1	<1	<8	<8	<5
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Hexachloroethane (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Nitrobenzene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Naphthalene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Isophorone (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<2	<1	<1	<8	<8	<5
Phenanthrene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #
Pyrene (aq)	<1 µg/l	TM176		<2 #	<1 #	<1 #	<8 #	<8 #	<5 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	1/2 SUMP	3/4 SUMP	SW201	SW202	SW204	SW205
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599371	9599373	9599359	9599360	9599361	9599362
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<8	<8	<1	<1	<1	<1
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		10.1 #	14.5 #	<1 #	<1 #	<1 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<8	<8	<1	<1	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<8	<8	<1	<1	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Acenaphthene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Anthracene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		40.5 #	46.2 #	<2 #	<2 #	<2 #	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	1/2 SUMP	3/4 SUMP	SW201	SW202	SW204	SW205
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599371	9599373	9599359	9599360	9599361	9599362
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Carbazole (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Chrysene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<40 #	<40 #	<5 #	<5 #	<5 #	<5 #
Fluoranthene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Fluorene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<8	<8	<1	<1	<1	<1
Phenol (aq)	<1 µg/l	TM176		<8	<8	<1	<1	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Naphthalene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Isophorone (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<8	<8	<1	<1	<1	<1
Phenanthrene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #
Pyrene (aq)	<1 µg/l	TM176		<8 #	<8 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW206	SW207	UD1	UD3	UD4	UD5
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599363	9599364	9599365	9599367	9599368	9599370
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW206	SW207	UD1	UD3	UD4	UD5
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599363	9599364	9599365	9599367	9599368	9599370
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbazole (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chrysene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Fluorene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isophorone (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenanthrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	LEACHATE HOLDING LAGOON	NACW228	NACW229	5 SUMP	6 SUMP	7 SUMP
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	08/07/2014	08/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599377	9599378	9599380	9599374	9599375	9599376
			AGS Reference						
Dibromofluoromethane**	%	TM208		101	111 1	114 1	105	103	101
Toluene-d8**	%	TM208		99.5	98.4 1	102 1	99.6	98.8	98.2
4-Bromofluorobenzene**	%	TM208		94.5	95.3 1	101 1	96.3	90.5	92.7
Dichlorodifluoromethane	<1 µg/l	TM208		<1	<1 1	<1 1	<1	<1	<1
Chloromethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	2.21 #	<1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 1 #	<3 1 #	<3 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1 1	<1 1	<1	<1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	4.6 1 #	7.06 1 #	<1 #	<1 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1 1	<1 1	<1	<1	<1
Benzene	<1 µg/l	TM208		1.75 #	<1 1 #	<1 1 #	3.08 #	1.8 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	4.18 1 #	6.46 1 #	<1 #	<1 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		6.33 #	<1 1 #	<1 1 #	3.39 #	6.16 #	5.69 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
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Component	LOD/Units	Method	Customer Sample R	LEACHATE HOLDING LAGOON	NACW228	NACW229	5 SUMP	6 SUMP	7 SUMP
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	08/07/2014	08/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599377	9599378	9599380	9599374	9599375	9599376
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	2.94 1 #	4.74 1 #	<1 #	<1 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	1.3 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		6.9 #	<1 1 #	<1 1 #	10.5 #	6.73 #	2.45 #
m,p-Xylene	<1 µg/l	TM208		8.65 #	<1 1 #	<1 1 #	7.73 #	8.48 #	2.91 #
o-Xylene	<1 µg/l	TM208		4.02 #	<1 1 #	<1 1 #	4.77 #	4.65 #	1.43 #
Styrene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1 1	<1 1	<1	<1	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		2.29 #	<1 1 #	<1 1 #	3.55 #	1.75 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1 1	<1 1	<1	<1	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1 1	<1 1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
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tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	LEACHATE HOLDING LAGOON	NACW228	NACW229	5 SUMP	6 SUMP	7 SUMP
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	08/07/2014	08/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599377	9599378	9599380	9599374	9599375	9599376
			AGS Reference						
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 1 #	<1 1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1 1	<1 1	<1	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	1/2 SUMP	3/4 SUMP	SW201	SW202	SW204	SW205
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599371	9599373	9599359	9599360	9599361	9599362
			AGS Reference						
Dibromofluoromethane**	%	TM208		103	103	117 1	115 1	112 1	116 1
Toluene-d8**	%	TM208		98.1	100	101 1	99.6 1	102 1	99.7 1
4-Bromofluorobenzene**	%	TM208		94.5	91.9	99.4 1	96.4 1	96.1 1	94 1
Dichlorodifluoromethane	<1 µg/l	TM208		<1	<1	<1 1	<1 1	<1 1	<1 1
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1 1	<1 1	<1 1	<1 1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	3.34 1 #	5.26 1 #	6.77 1 #	2.01 1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1 1	<1 1	<1 1	<1 1
Benzene	<1 µg/l	TM208		1.22 #	1.44 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	3.38 1 #	4.11 1 #	5.66 1 #	1.77 1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Toluene	<1 µg/l	TM208		4.35 #	6.05 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	1/2 SUMP	3/4 SUMP	SW201	SW202	SW204	SW205
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599371	9599373	9599359	9599360	9599361	9599362
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	1.69 1 #	2.45 1 #	3.63 1 #	1.27 1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Ethylbenzene	<1 µg/l	TM208		4.27 #	6.53 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
m,p-Xylene	<1 µg/l	TM208		5.74 #	8 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
o-Xylene	<1 µg/l	TM208		2.69 #	3.4 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1 1	<1 1	<1 1	<1 1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		1.66 #	2.15 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1 1	<1 1	<1 1	<1 1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1 1	<1 1	<1 1	<1 1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	1/2 SUMP	3/4 SUMP	SW201	SW202	SW204	SW205
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599371	9599373	9599359	9599360	9599361	9599362
			AGS Reference						
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1 1	<1 1	<1 1	<1 1

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW206	SW207	UD1	UD3	UD4	UD5
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599363	9599364	9599365	9599367	9599368	9599370
			AGS Reference						
Dibromofluoromethane**	%	TM208		117 1	114 1	115 1	113 1	120 1	112 1
Toluene-d8**	%	TM208		99.4 1	100 1	101 1	100 1	98.7 1	100 1
4-Bromofluorobenzene**	%	TM208		94.9 1	94 1	99.3 1	95.5 1	98.4 1	95.5 1
Dichlorodifluoromethane	<1 µg/l	TM208		<1 1	<1 1	<1 1	<1 1	<1 1	<1 1
Chloromethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Vinyl chloride	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Bromomethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Chloroethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Carbon disulphide	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Dichloromethane	<3 µg/l	TM208		<3 1 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #	<3 1 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1 1	<1 1	<1 1	<1 1	<1 1	<1 1
Bromochloromethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Chloroform	<1 µg/l	TM208		<1 1 #	2.32 1 #	6.42 1 #	3.87 1 #	1.31 1 #	<1 1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Carbontetrachloride	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1 1	<1 1	<1 1	<1 1	<1 1	<1 1
Benzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Trichloroethene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Dibromomethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Bromodichloromethane	<1 µg/l	TM208		<1 1 #	2.01 1 #	5.88 1 #	3.49 1 #	<1 1 #	<1 1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Toluene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW206	SW207	UD1	UD3	UD4	UD5
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
			SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
			Lab Sample No.(s)	9599363	9599364	9599365	9599367	9599368	9599370
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Tetrachloroethene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Dibromochloromethane	<1 µg/l	TM208		<1 1 #	1.11 1 #	2.97 1 #	1.98 1 #	<1 1 #	<1 1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Chlorobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Ethylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
m,p-Xylene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
o-Xylene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Styrene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Bromoform	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Isopropylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1 1	<1 1	<1 1	<1 1	<1 1	<1 1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Bromobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Propylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
n-Butylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1 1	<1 1	<1 1	<1 1	<1 1	<1 1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1 1	<1 1	<1 1	<1 1	<1 1	<1 1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
Naphthalene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

VOC MS (W)

Results Legend		Customer Sample R	SW206	SW207	UD1	UD3	UD4	UD5
#	ISO17025 accredited.							
M	*m*CERTS accredited.							
aq	Aqueous / settled sample.							
diss.filt	Dissolved / filtered sample.							
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted test.							
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery							
(F)	Trigger breach confirmed							
1-5&+§@	Sample deviation (see appendix)							
		Depth (m)	.	.	.	.	.	.
		Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
		Date Sampled	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
		Sampled Time	.	.	.	.	.	.
		Date Received	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
		SDG Ref	140711-36	140711-36	140711-36	140711-36	140711-36	140711-36
		Lab Sample No.(s)	9599363	9599364	9599365	9599367	9599368	9599370
		AGS Reference						
Component	**LOD/Units**	**Method**						
1,2,3-Trichlorobenzene	<1 µg/l	TM208	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #	<1 1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208	<1 1	<1 1	<1 1	<1 1	<1 1	<1 1

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
Calulation				
TM022	Method 2540D, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part120 1981;BS EN 872	Determination of total suspended solids in waters		
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples		
TM045	MEWAM BOD5 2nd Ed.HMSO 1988 / Method 5210B, AWWA/APHA, 20th Ed., 1999; SCA Blue Book 130	Determination of BOD5 (ATU) Filtered by Oxygen Meter on liquids		
TM061	Method for the Determination of EPH,Massachusetts Dept.of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)		
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM107	ISO 6060-1989	Determination of Chemical Oxygen Demand using COD Dr Lange Kit		
TM120	Method 2510B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part 9:1970	Determination of Electrical Conductivity using a Conductivity Meter		
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS		
TM172	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	EPH in Waters		
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters		
TM228	US EPA Method 6010B	Determination of Major Cations in Water by iCap 6500 Duo ICP-OES		
TM245	By GC-FID	Determination of GRO by Headspace in waters		
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter		
TM324		Analysis of Acid Herbicides in Aqueous Sample by LCQQQ		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Test Completion Dates

Lab Sample No(s)	9599374	9599375	9599376	9599371	9599373	9599377	9599378	9599380	9599359	9599360
Customer Sample Ref.	5 SUMP	6 SUMP	7 SUMP	1/2 SUMP	3/4 SUMP	LEACHATE HOLDING LAGOON	NACW228	NACW229	SW201	SW202
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Acid Herbicides by LCQQQ (aq)	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014
Alkalinity as CaCO3	18-Jul-2014	18-Jul-2014	16-Jul-2014	15-Jul-2014	15-Jul-2014	18-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014
Alkalinity Filtered as CaCO3									18-Jul-2014	18-Jul-2014
Ammoniacal Nitrogen	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	16-Jul-2014
Anions by Kone (w)	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	21-Jul-2014
BOD True Total	17-Jul-2014	17-Jul-2014	17-Jul-2014	17-Jul-2014	17-Jul-2014	17-Jul-2014				
COD Unfiltered	16-Jul-2014	13-Jul-2014	18-Jul-2014	13-Jul-2014	16-Jul-2014	16-Jul-2014				
Conductivity (at 20 deg.C)	14-Jul-2014	14-Jul-2014	14-Jul-2014	16-Jul-2014	16-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014
Dissolved Metals by ICP-MS	16-Jul-2014	16-Jul-2014	16-Jul-2014	21-Jul-2014	21-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014
EPH (DRO) (C10-C40) Aqueous (W)	18-Jul-2014	17-Jul-2014	18-Jul-2014	17-Jul-2014	17-Jul-2014	18-Jul-2014	17-Jul-2014	17-Jul-2014	17-Jul-2014	17-Jul-2014
GRO by GC-FID (W)	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014
Ionic Balance									18-Jul-2014	21-Jul-2014
Metals by iCap-OES Dissolved (W)	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014
Nitrite by Kone (w)							15-Jul-2014	15-Jul-2014	14-Jul-2014	16-Jul-2014
pH Value									16-Jul-2014	16-Jul-2014
Suspended Solids									15-Jul-2014	15-Jul-2014
SVOC MS (W) - Aqueous	18-Jul-2014	18-Jul-2014	15-Jul-2014	18-Jul-2014	18-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014
Total EPH (aq)	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014
Total Organic and Inorganic Carbon	15-Jul-2014	15-Jul-2014	15-Jul-2014	16-Jul-2014	16-Jul-2014	15-Jul-2014			15-Jul-2014	15-Jul-2014
VOC MS (W)	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014

Lab Sample No(s)	9599361	9599362	9599363	9599364	9599365	9599367	9599368	9599370
Customer Sample Ref.	SW204	SW205	SW206	SW207	UD1	UD3	UD4	UD5
AGS Ref.								
Depth								
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Acid Herbicides by LCQQQ (aq)	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014
Alkalinity as CaCO3	16-Jul-2014	16-Jul-2014	16-Jul-2014	18-Jul-2014	16-Jul-2014	18-Jul-2014	15-Jul-2014	15-Jul-2014
Alkalinity Filtered as CaCO3	18-Jul-2014	18-Jul-2014	18-Jul-2014	24-Jul-2014				
Ammoniacal Nitrogen	16-Jul-2014	16-Jul-2014	15-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014
Anions by Kone (w)	16-Jul-2014	21-Jul-2014	16-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	21-Jul-2014	21-Jul-2014
Conductivity (at 20 deg.C)	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	14-Jul-2014	16-Jul-2014	16-Jul-2014
Dissolved Metals by ICP-MS	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014
EPH (DRO) (C10-C40) Aqueous (W)	17-Jul-2014	17-Jul-2014	17-Jul-2014	17-Jul-2014	17-Jul-2014	17-Jul-2014	17-Jul-2014	17-Jul-2014
GRO by GC-FID (W)	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014	20-Jul-2014
Ionic Balance	18-Jul-2014	21-Jul-2014	18-Jul-2014	21-Jul-2014				
Metals by iCap-OES Dissolved (W)	16-Jul-2014	16-Jul-2014	14-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014	18-Jul-2014	18-Jul-2014
Nitrite by Kone (w)	16-Jul-2014	16-Jul-2014	16-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014	18-Jul-2014
pH Value	16-Jul-2014	16-Jul-2014	16-Jul-2014	16-Jul-2014				
Suspended Solids	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014				
SVOC MS (W) - Aqueous	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014	18-Jul-2014	18-Jul-2014
Total EPH (aq)	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014	21-Jul-2014
Total Organic and Inorganic Carbon	15-Jul-2014	15-Jul-2014	15-Jul-2014	15-Jul-2014				
VOC MS (W)	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014	19-Jul-2014

CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

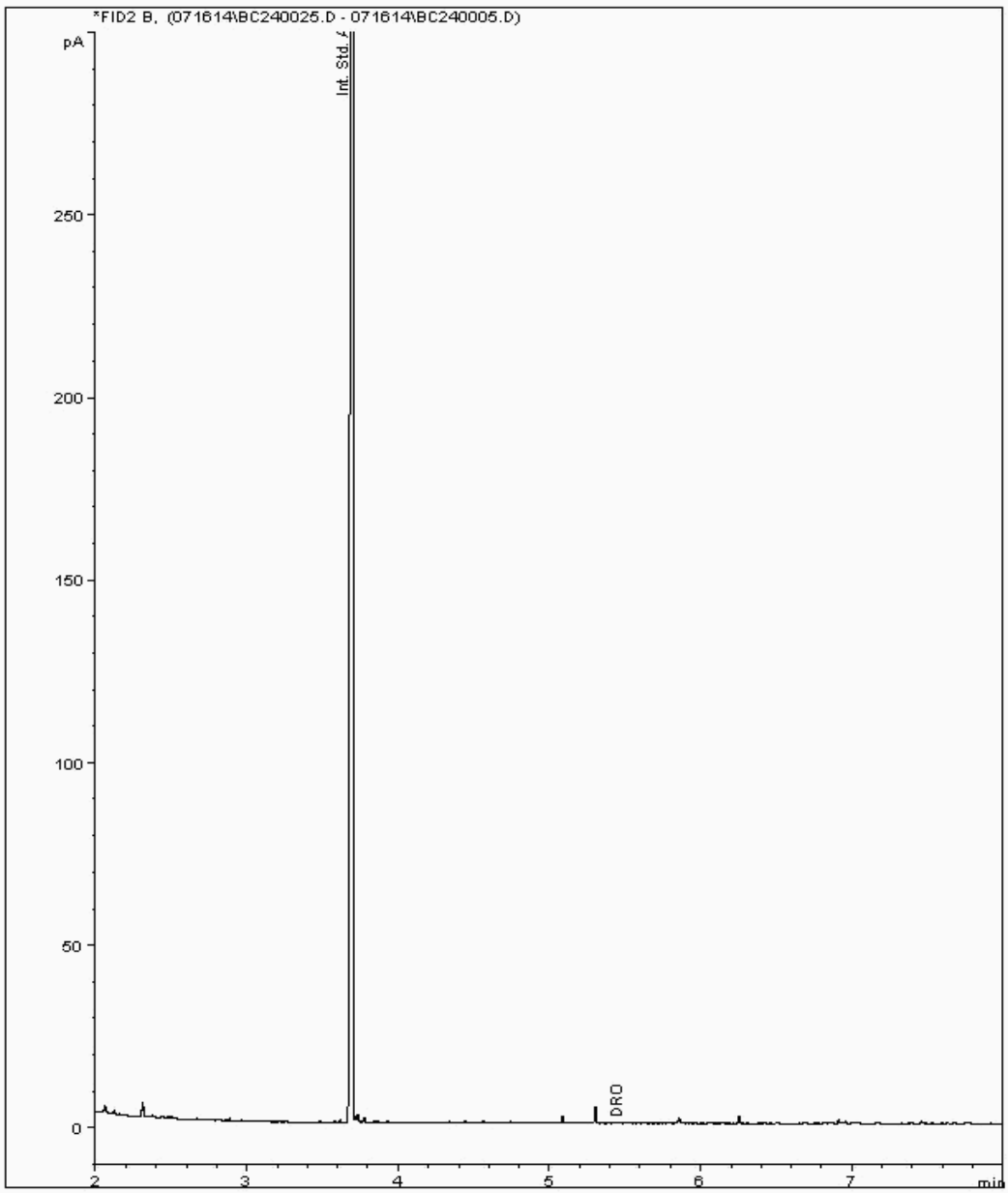
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9603911
Sample ID : SW205

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117086-9603911
Date Acquired : 17/07/2014 08:58:52 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

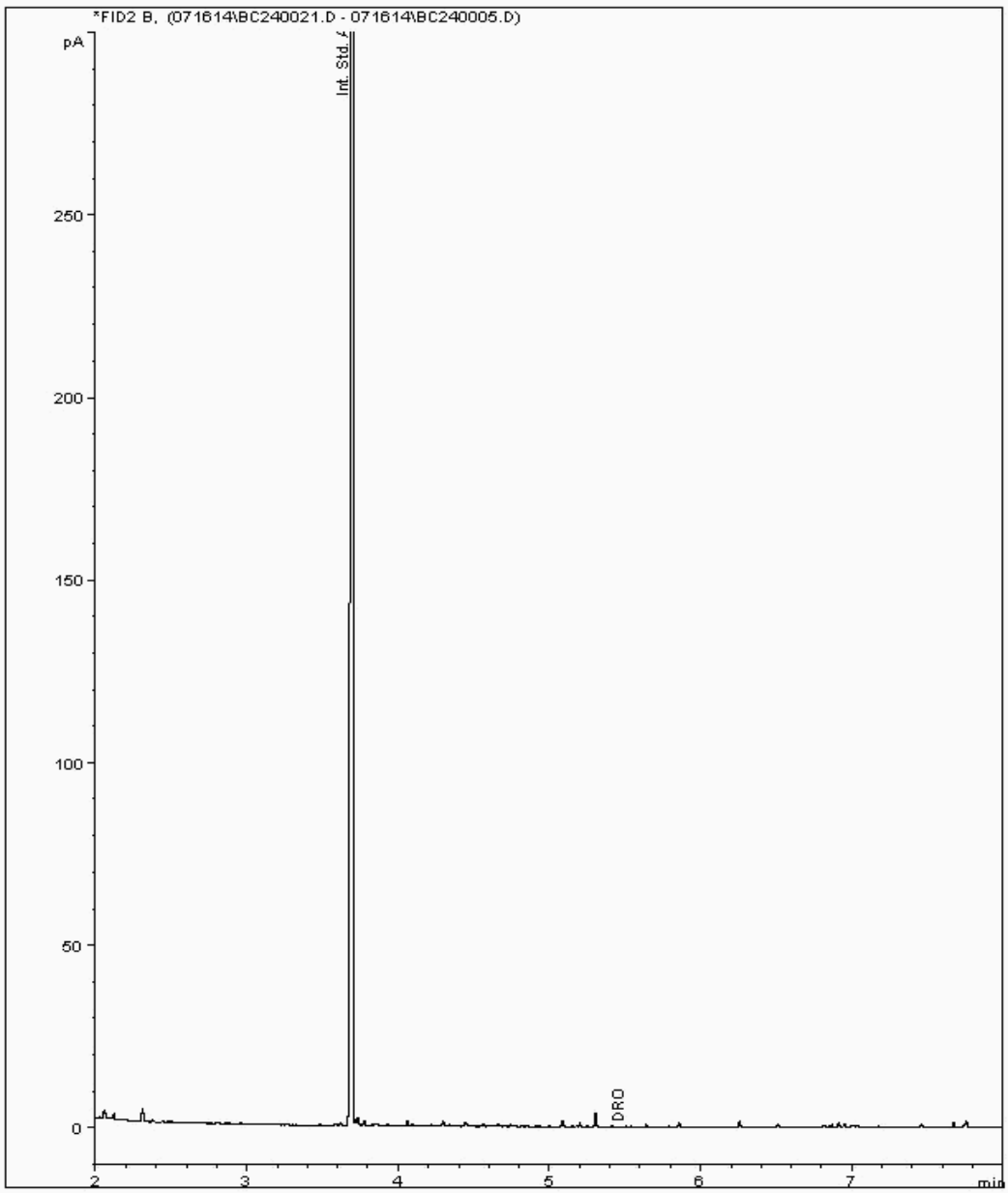
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9603936
Sample ID : UD1

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117218-9603936
Date Acquired : 16/07/2014 21:37:41 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

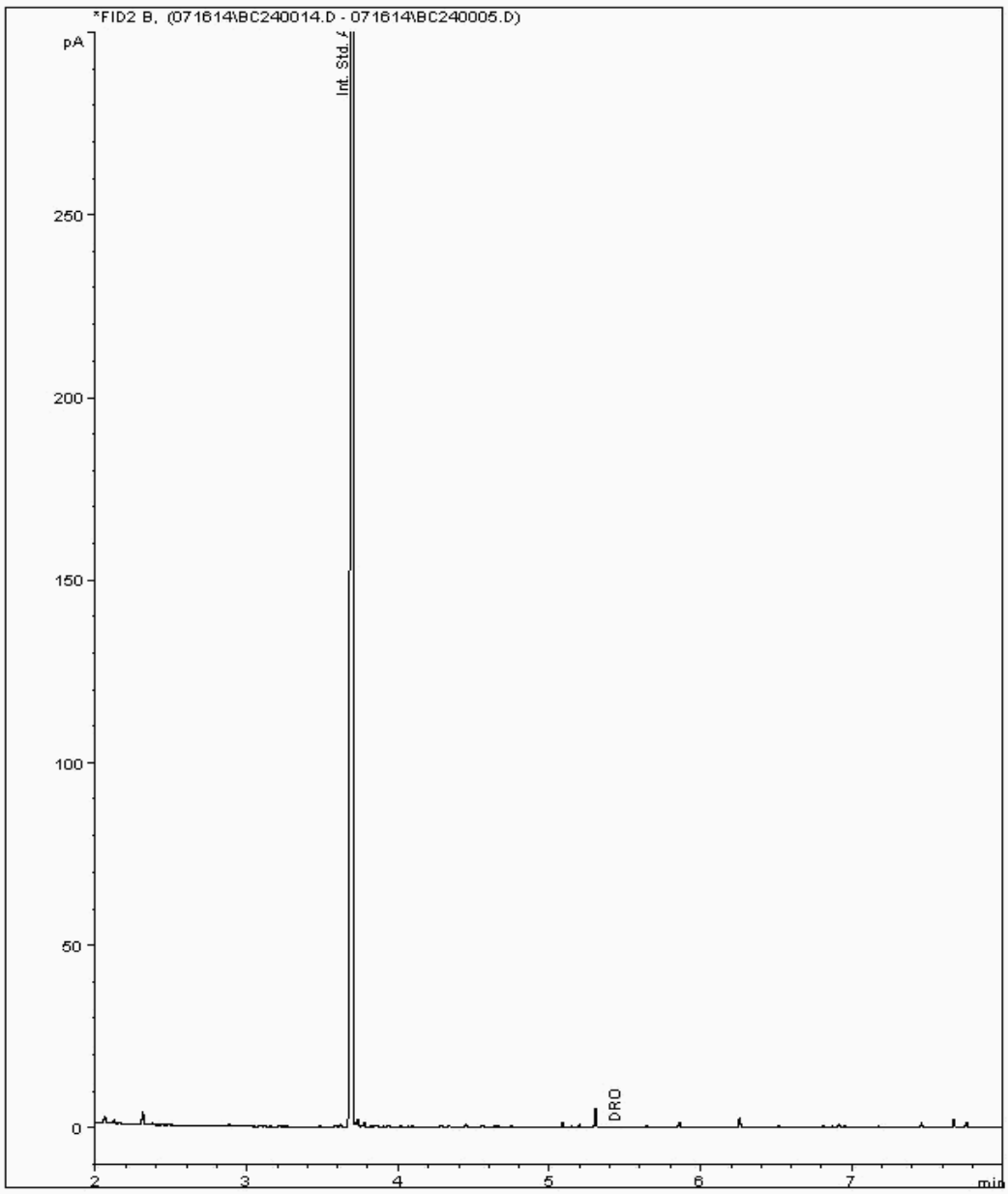
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9604103
Sample ID : UD3

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117248-9604103
Date Acquired : 16/07/2014 18:58:05 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

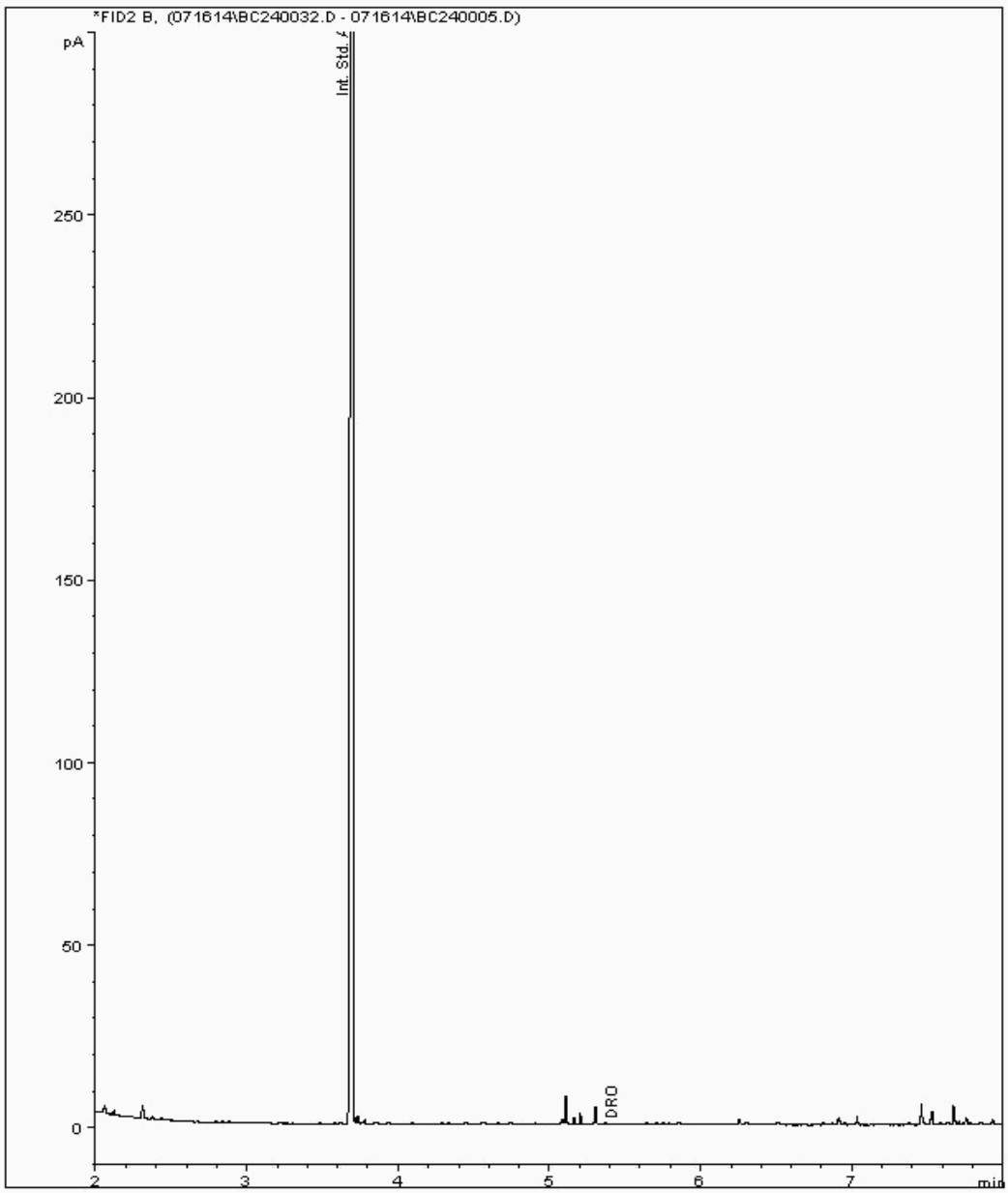
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9604130
Sample ID : SW206

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117125-9604130
Date Acquired : 17/07/2014 11:40:03 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

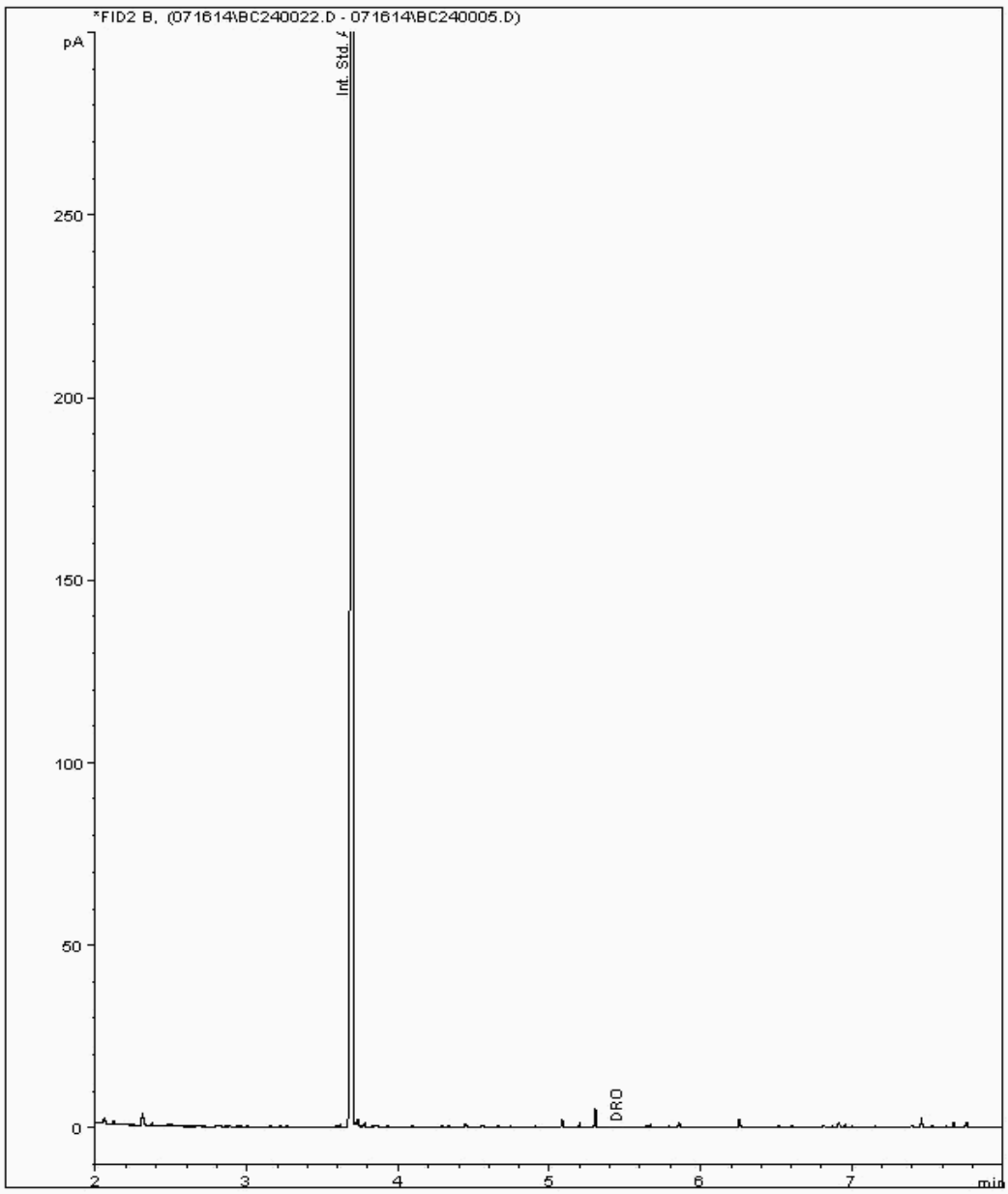
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9604149
Sample ID : SW204

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117036-9604149
Date Acquired : 16/07/2014 22:00:26 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

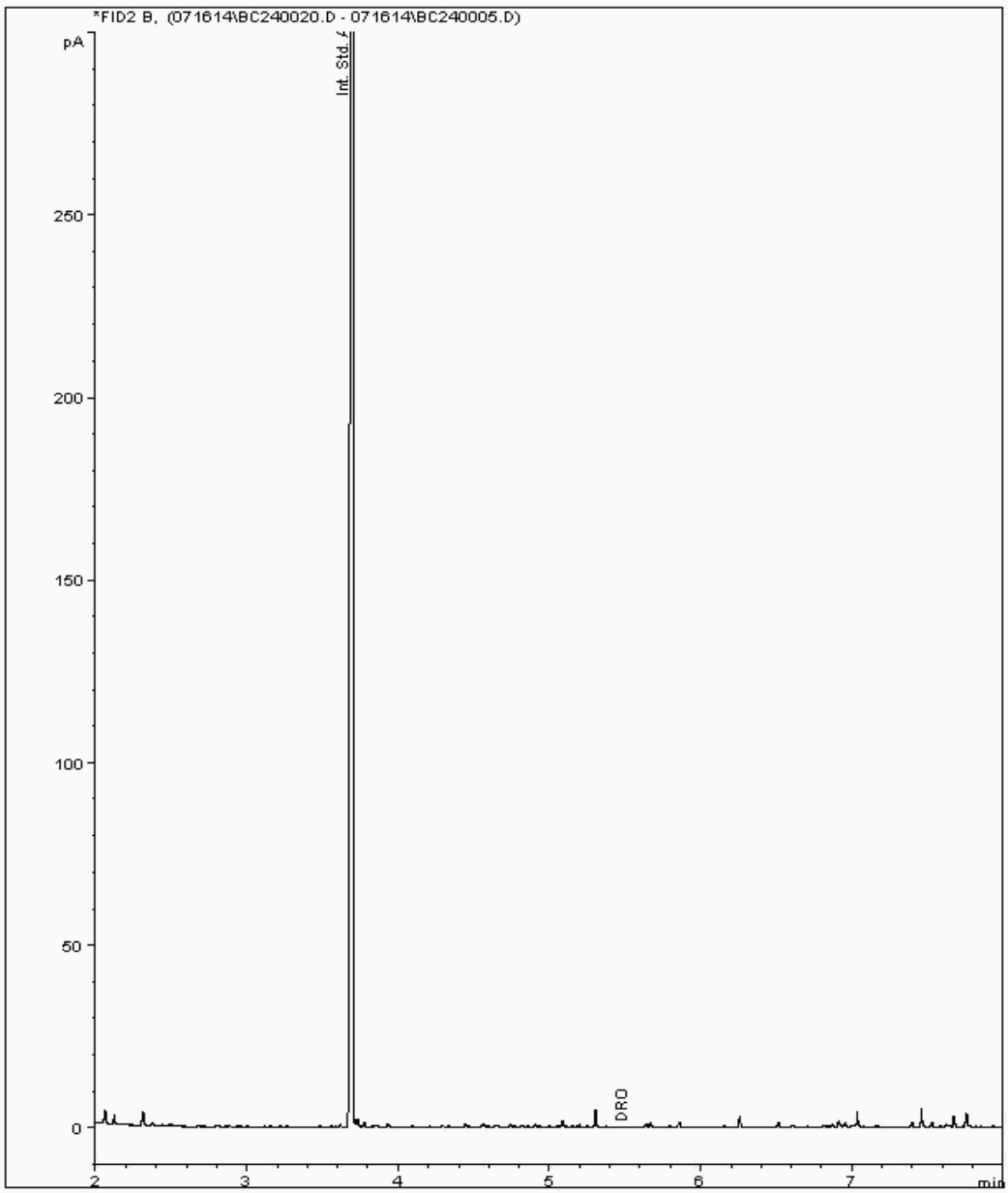
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9604196
Sample ID : SW207

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117180-9604196
Date Acquired : 16/07/2014 21:15:07 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

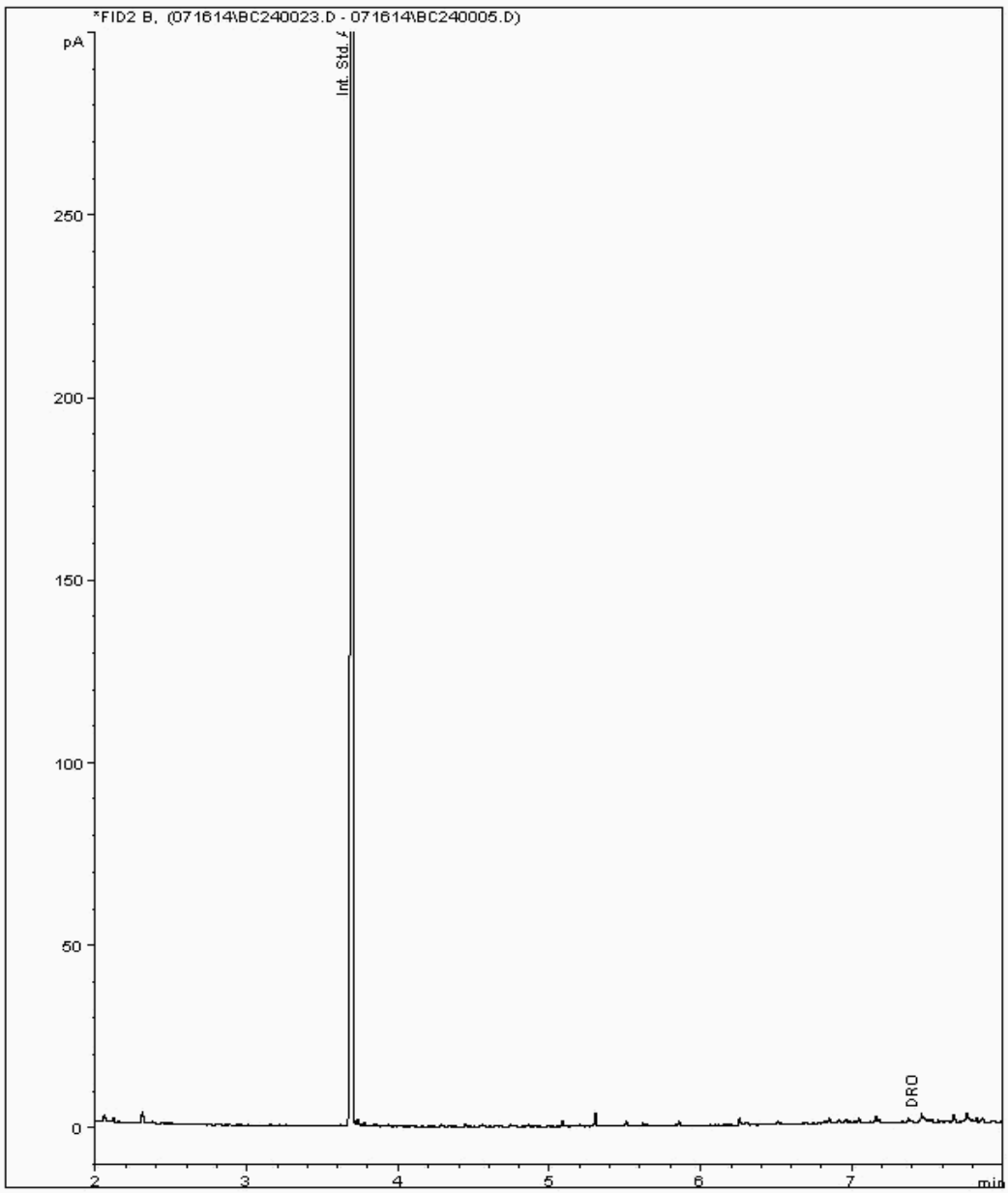
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9604239
Sample ID : SW202

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9116995-9604239
Date Acquired : 16/07/2014 22:23:13 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

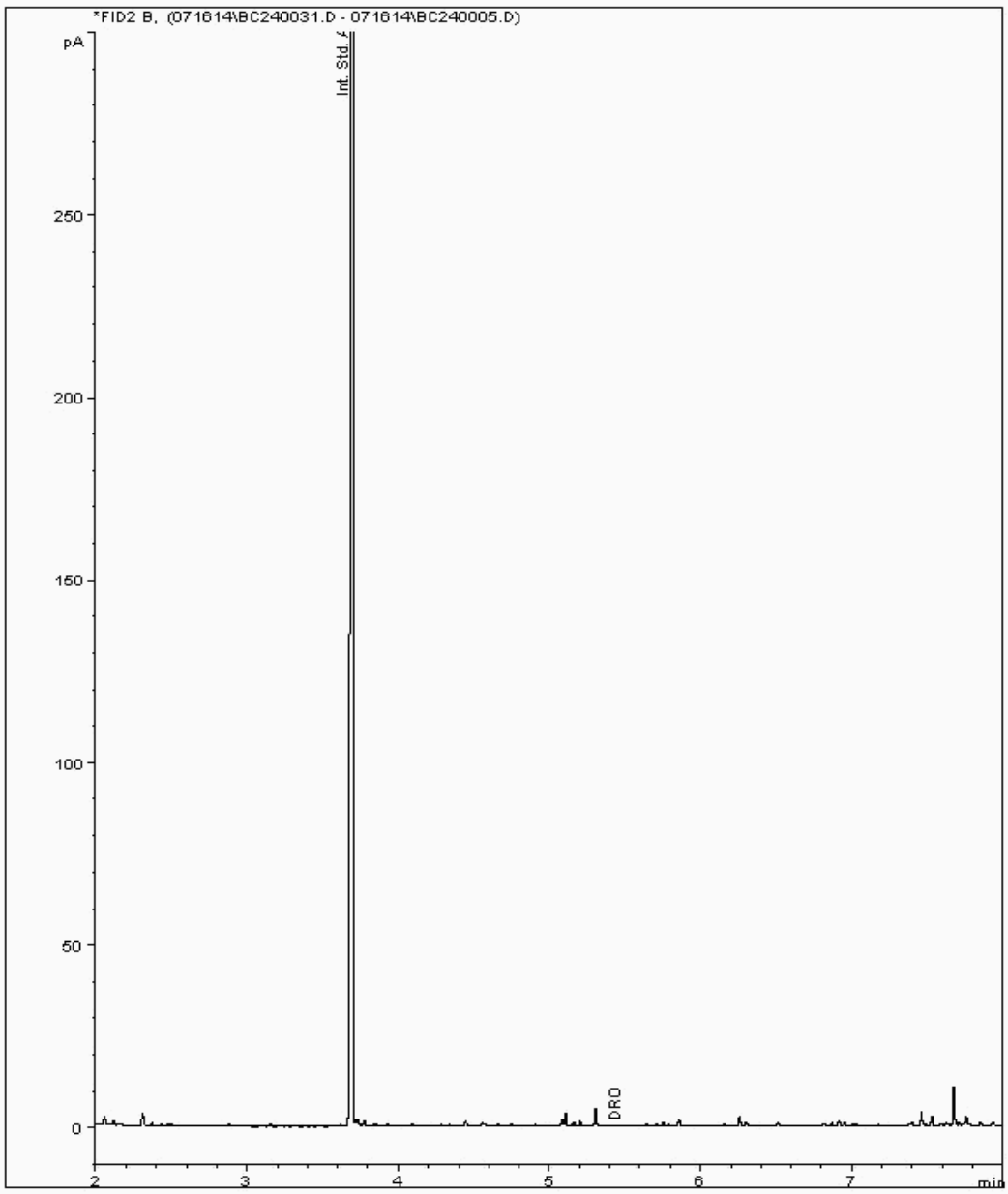
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9604294
Sample ID : SW201

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9116941-9604294
Date Acquired : 17/07/2014 11:16:32 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

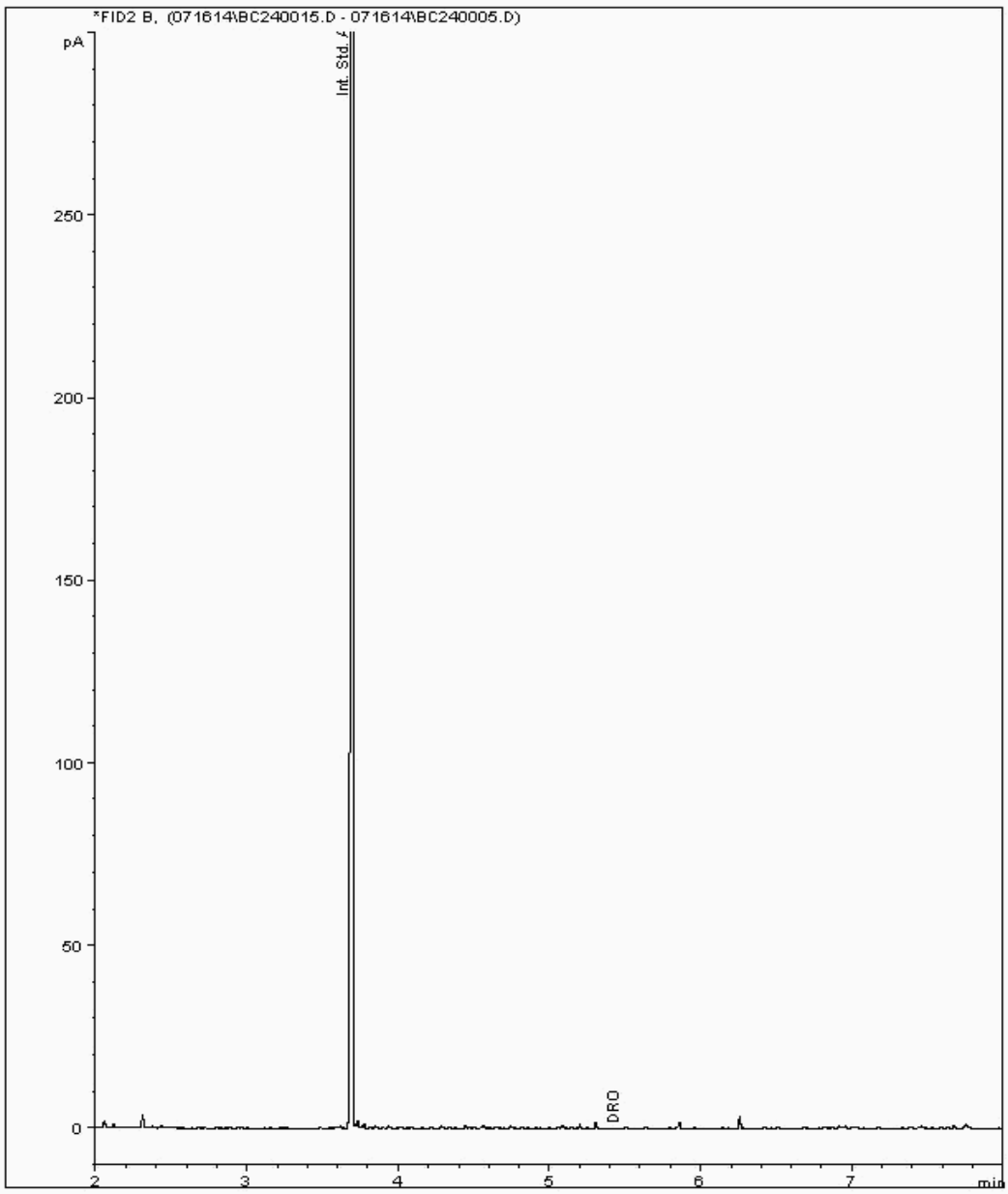
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9604414
Sample ID : NACW229

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117419-9604414
Date Acquired : 16/07/2014 19:20:57 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

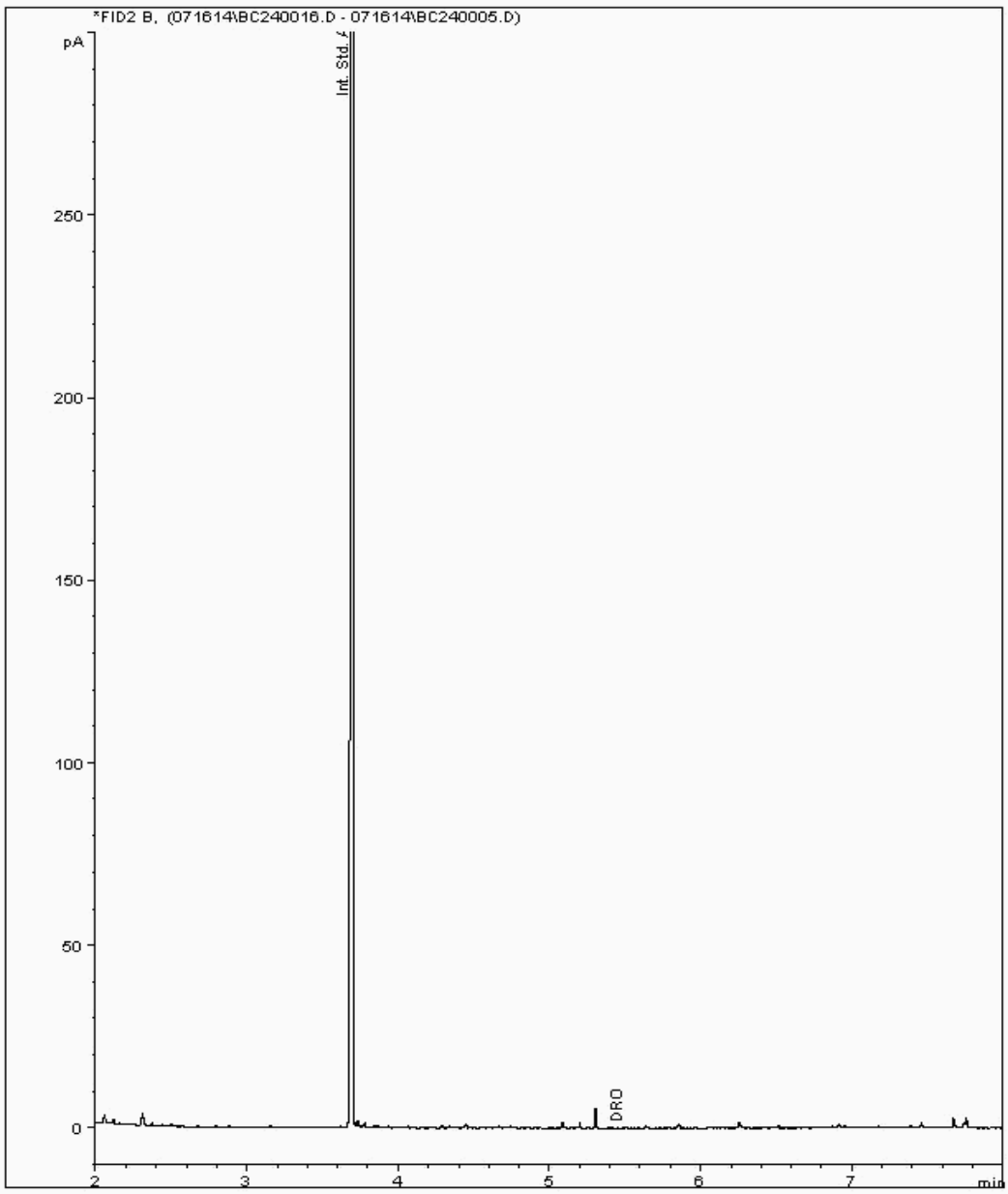
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9604454
Sample ID : NACW228

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117399-9604454
Date Acquired : 16/07/2014 19:43:58 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

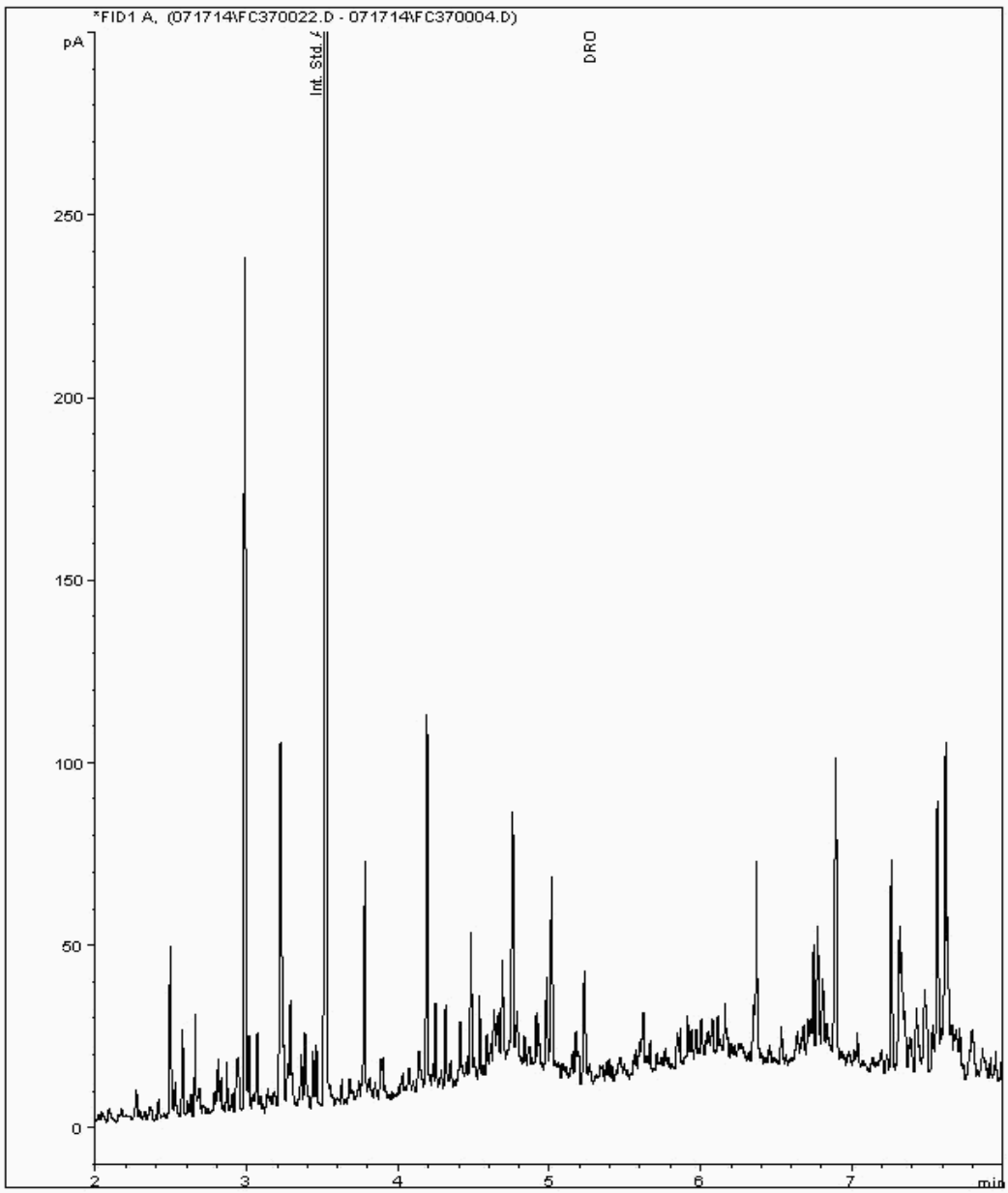
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9606668
Sample ID : 7 SUMP

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117367-9606668
Date Acquired : 17/07/2014 19:08:50 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

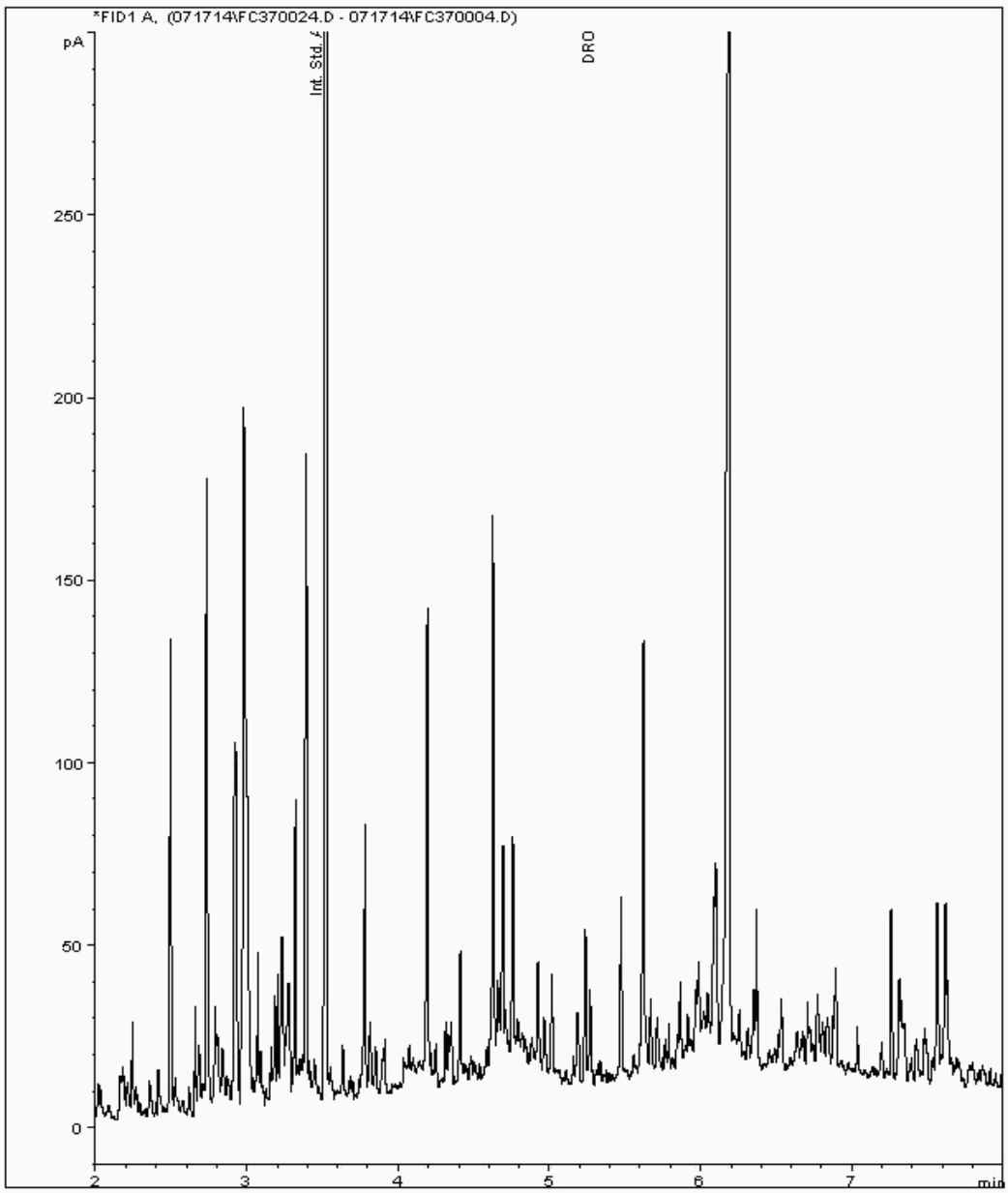
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9606795
Sample ID : LEACHATE HOLDING LAGOC

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117383-9606795
Date Acquired : 17/07/2014 19:54:55 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

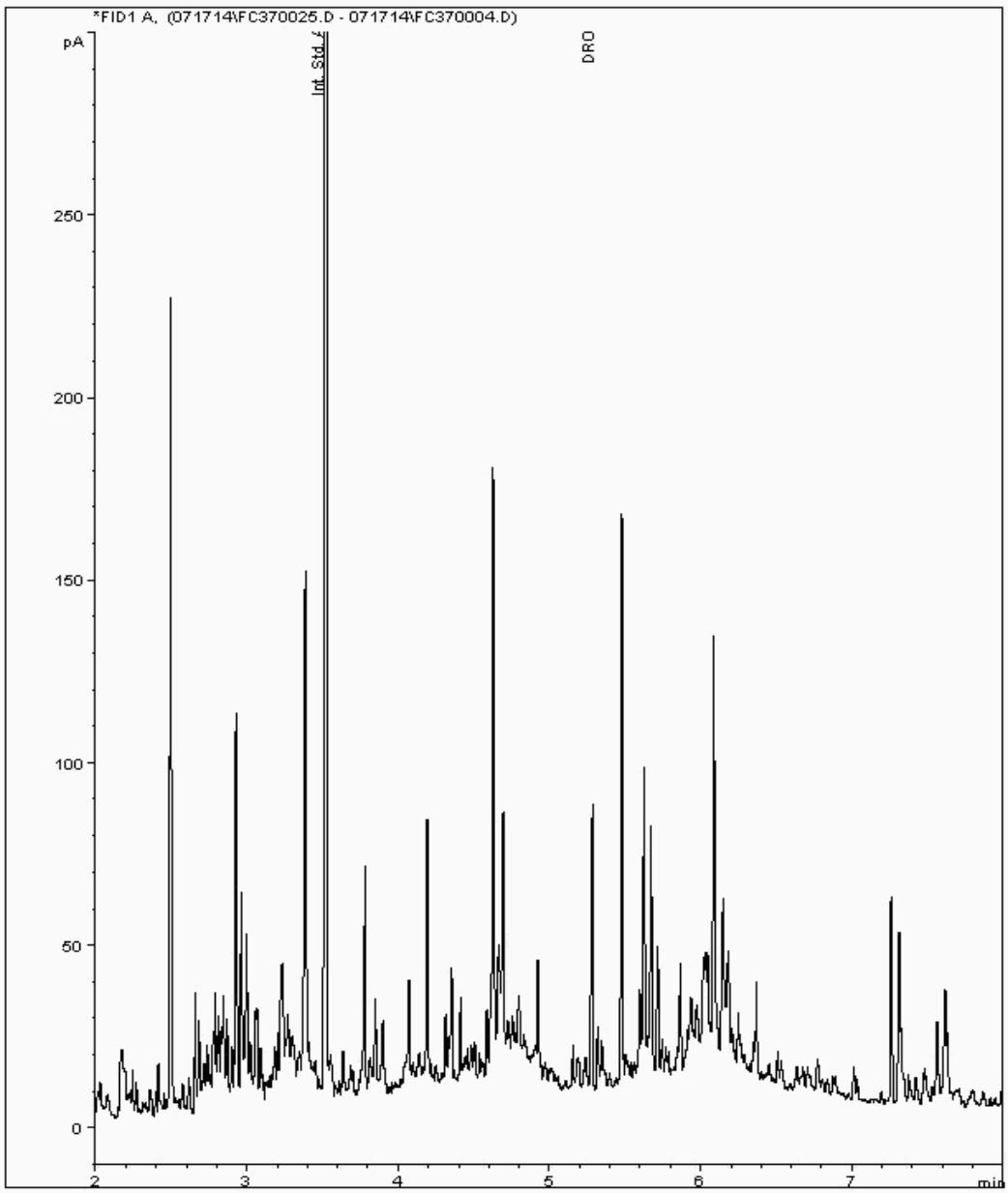
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9606831
Sample ID : 5 SUMP

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117333-9606831
Date Acquired : 17/07/2014 20:17:45 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

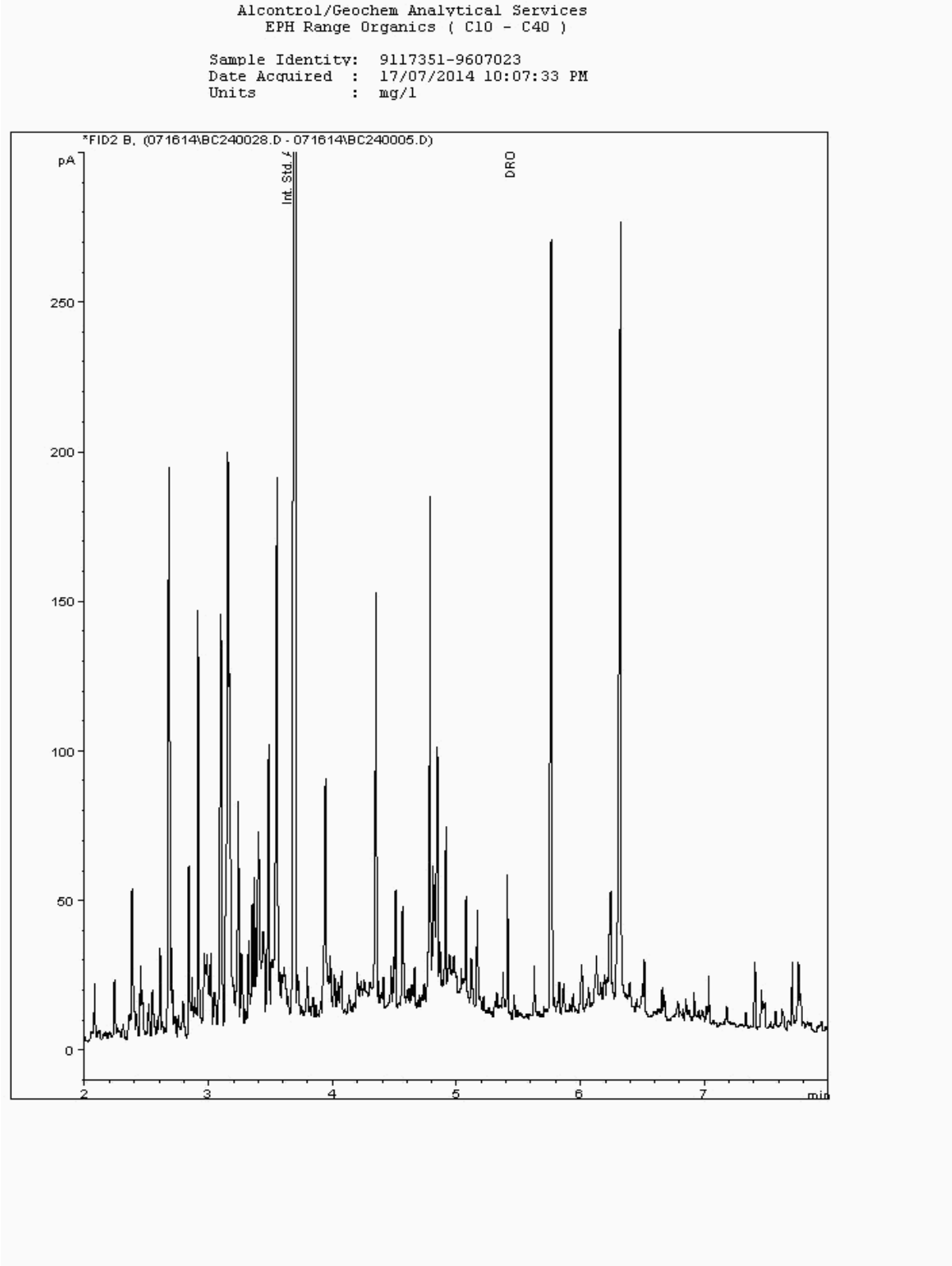
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9607023
Sample ID : 6 SUMP

Depth :



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

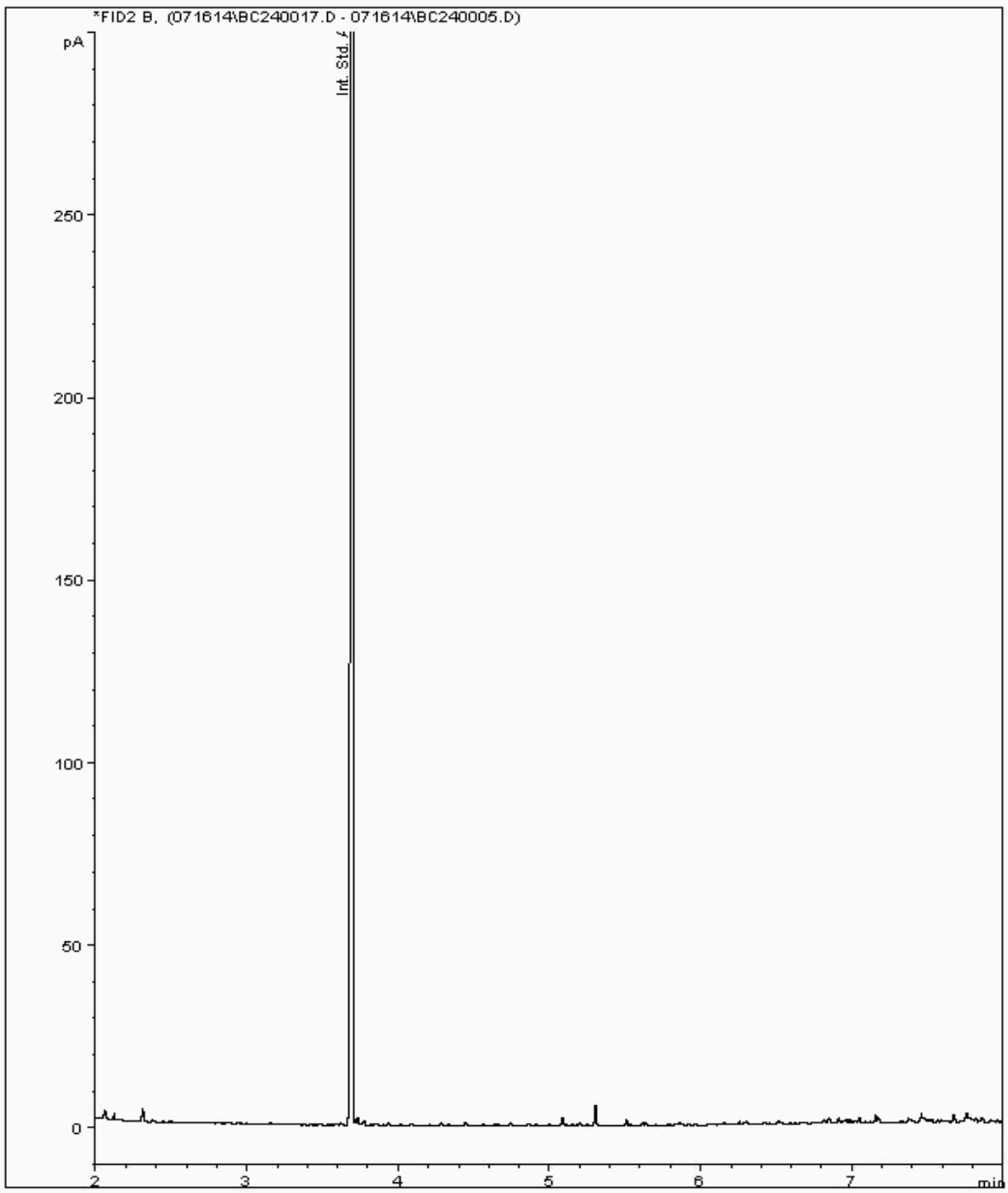
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9615358
Sample ID : UD4

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117269-9615358
Date Acquired : 16/07/2014 20:06:48 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

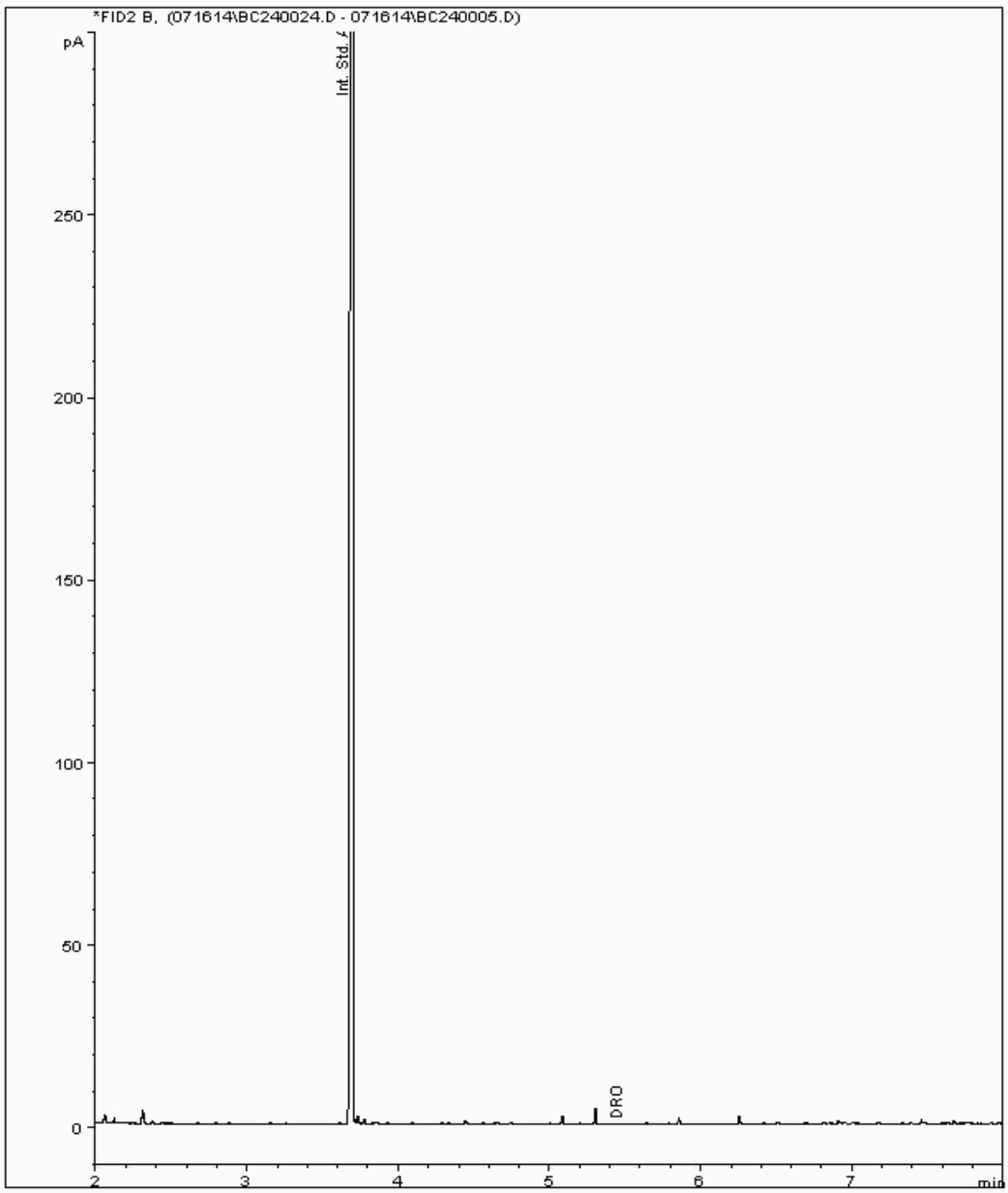
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9615381
Sample ID : UD5

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117284-9615381
Date Acquired : 17/07/2014 08:36:27 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

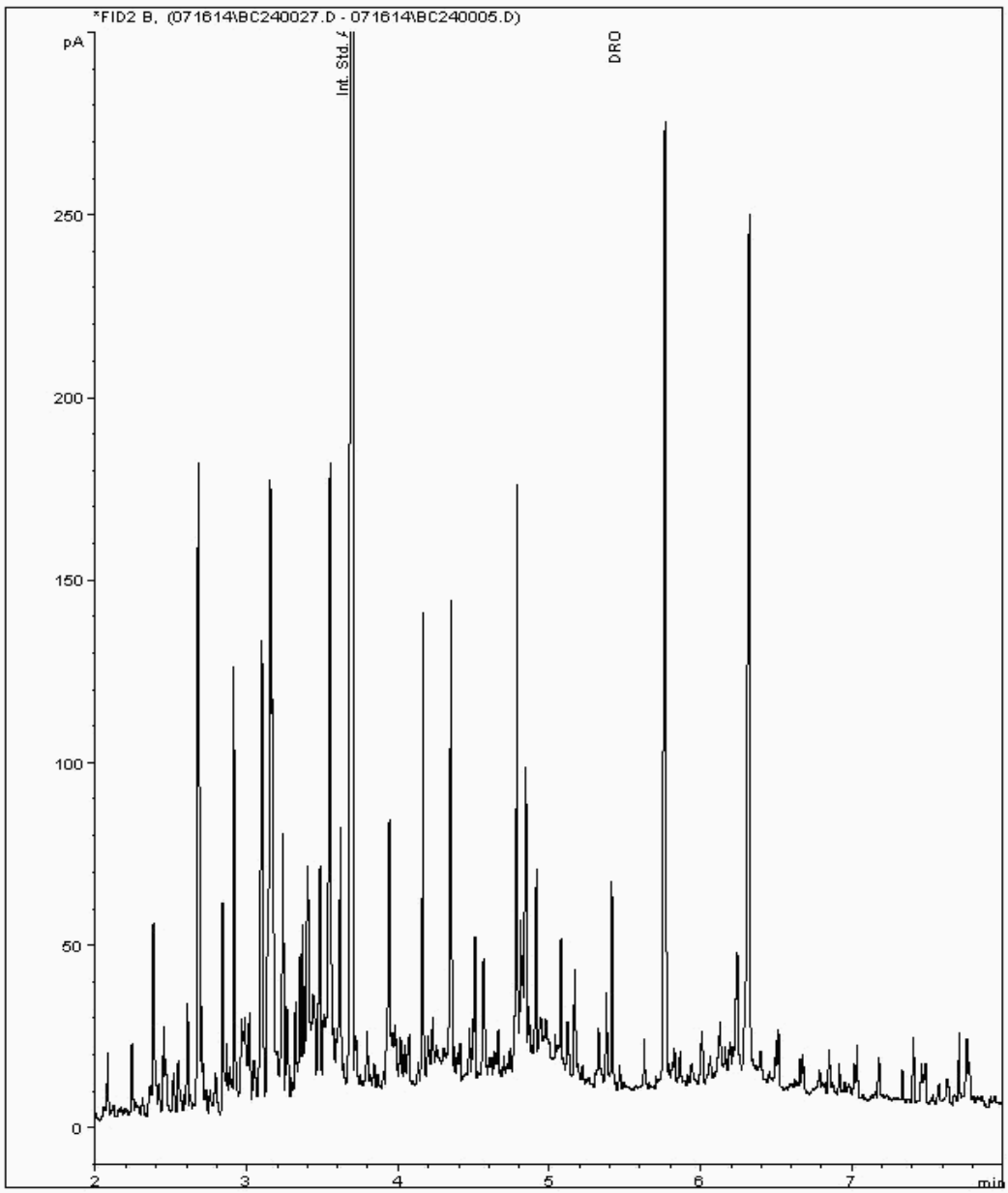
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9615404
Sample ID : 3/4 SUMP

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117317-9615404
Date Acquired : 17/07/2014 09:44:39 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

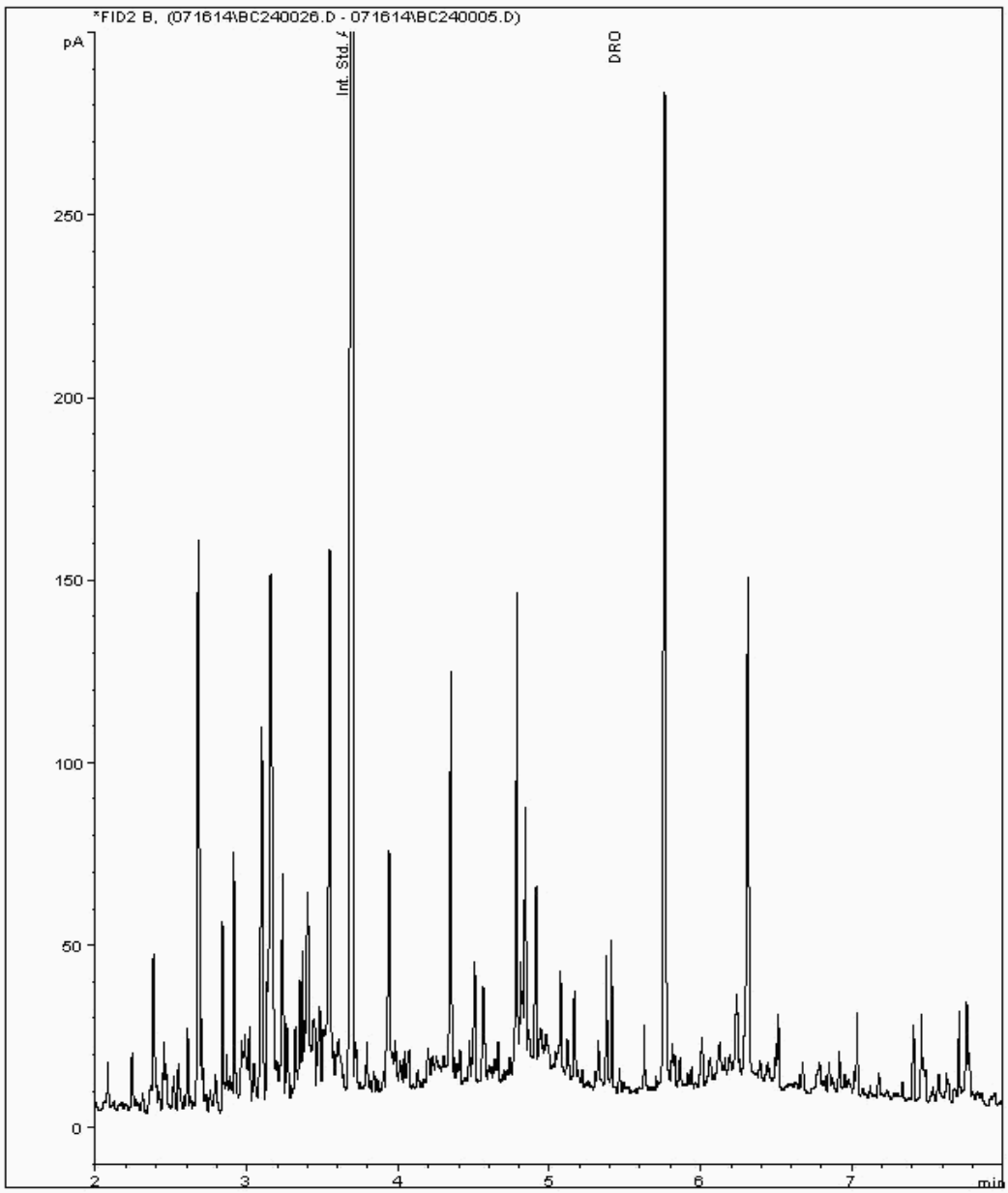
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 9615414
Sample ID : 1/2 SUMP

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9117298-9615414
Date Acquired : 17/07/2014 09:21:49 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

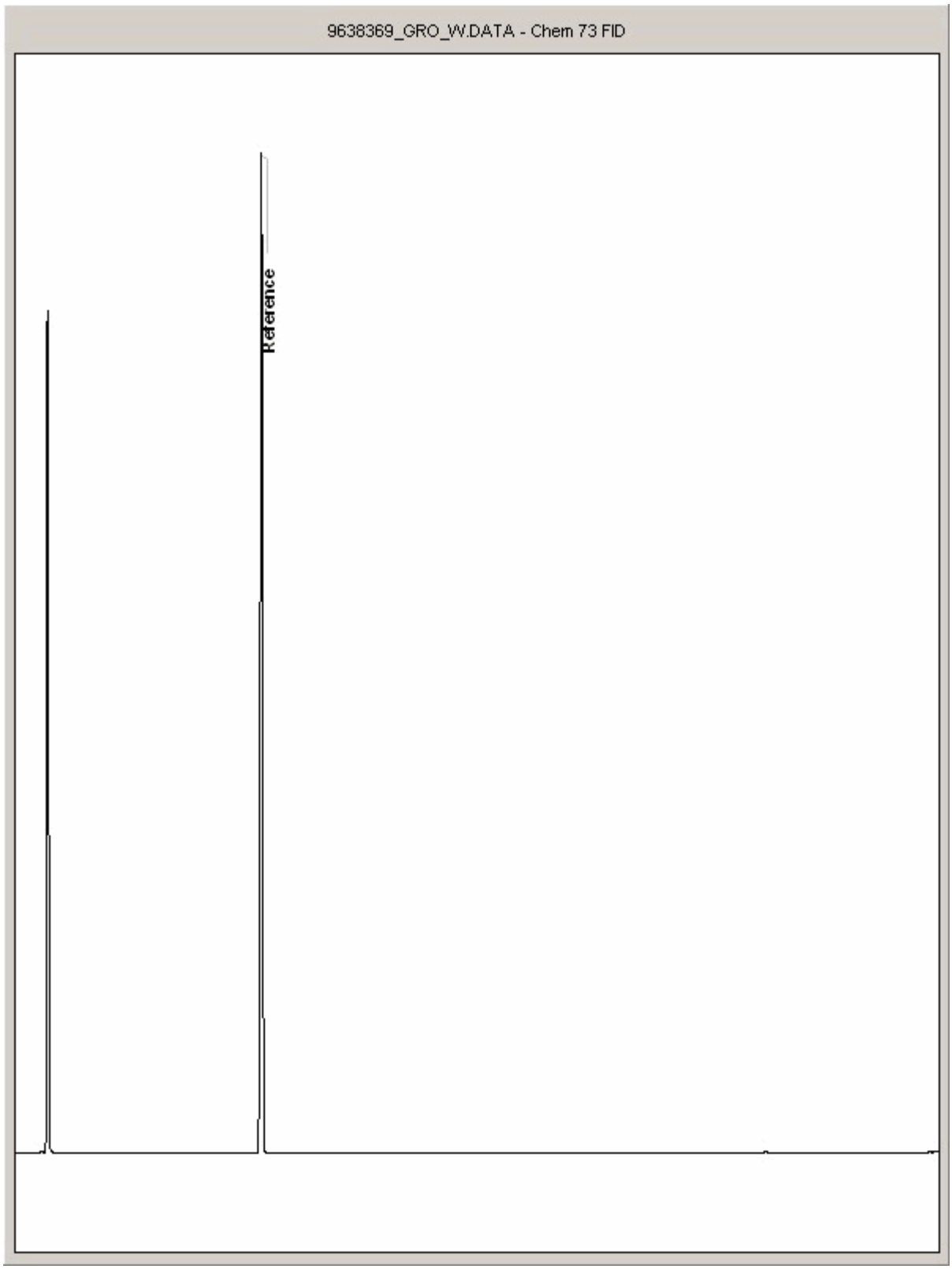
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638369
Sample ID : NACW228

Depth :



CERTIFICATE OF ANALYSIS

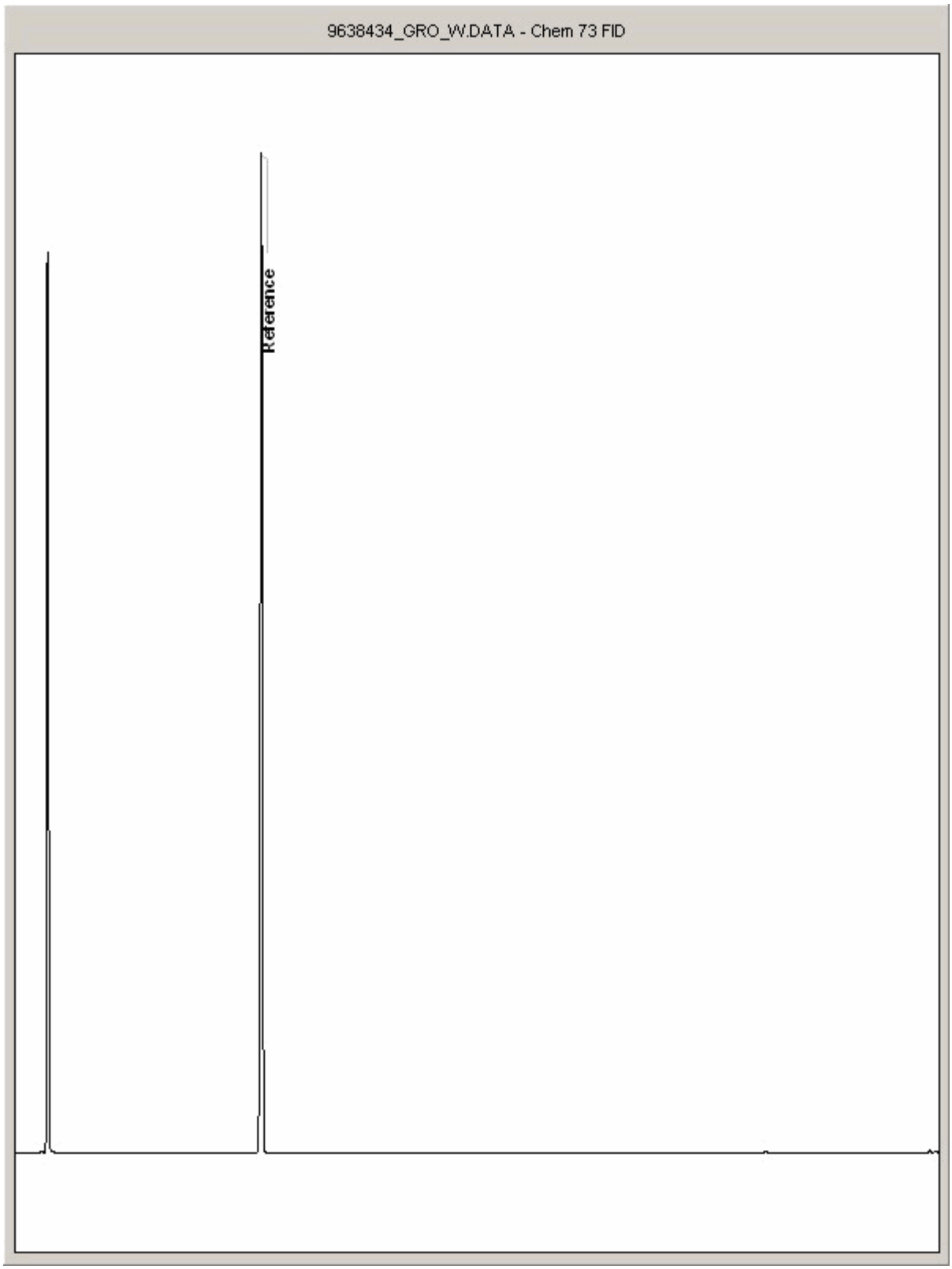
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638434
Sample ID : NACW229

Depth :



CERTIFICATE OF ANALYSIS

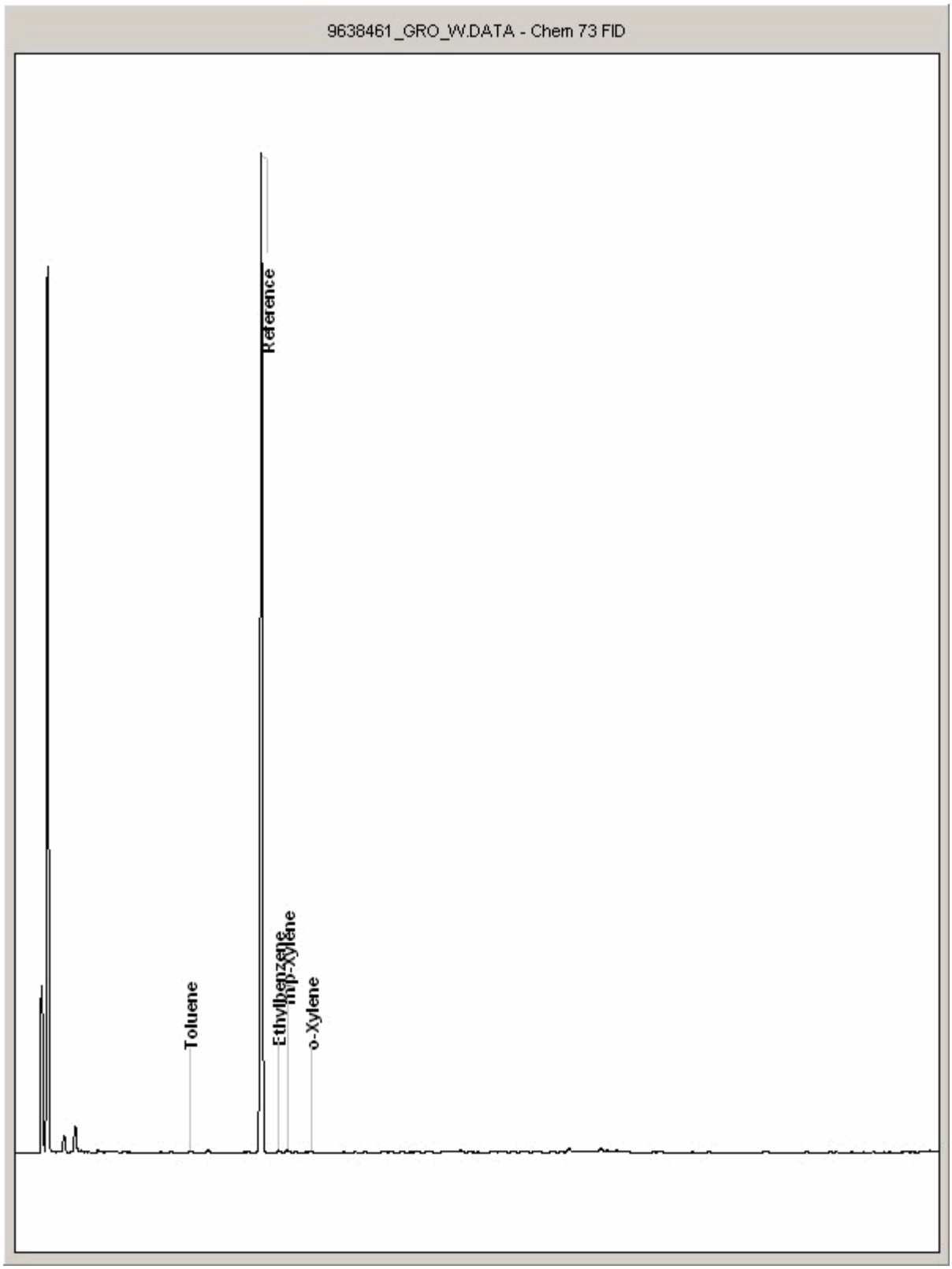
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638461
Sample ID : LEACHATE HOLDING LAGOC

Depth :



CERTIFICATE OF ANALYSIS

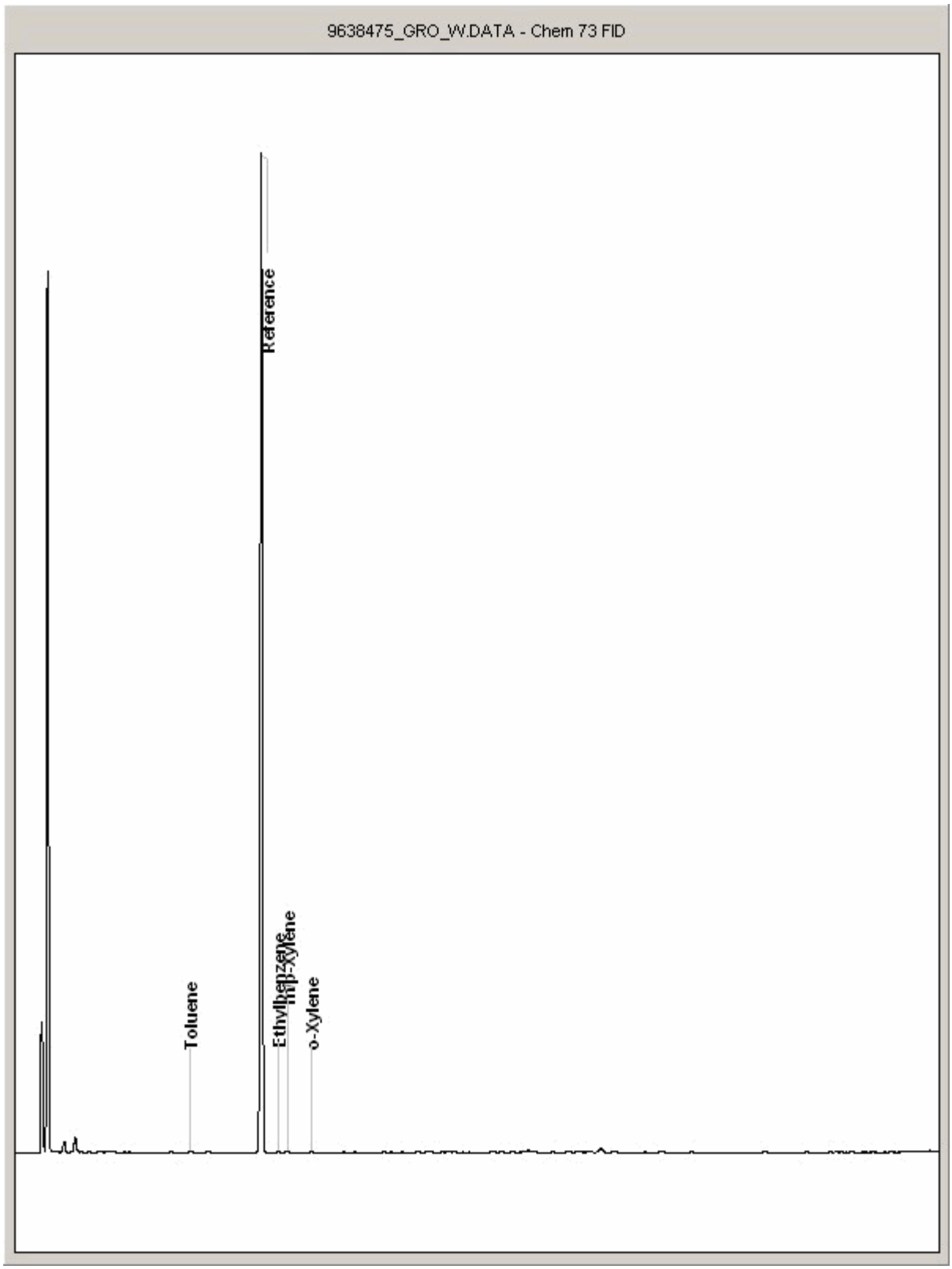
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638475
Sample ID : 7 SUMP

Depth :



CERTIFICATE OF ANALYSIS

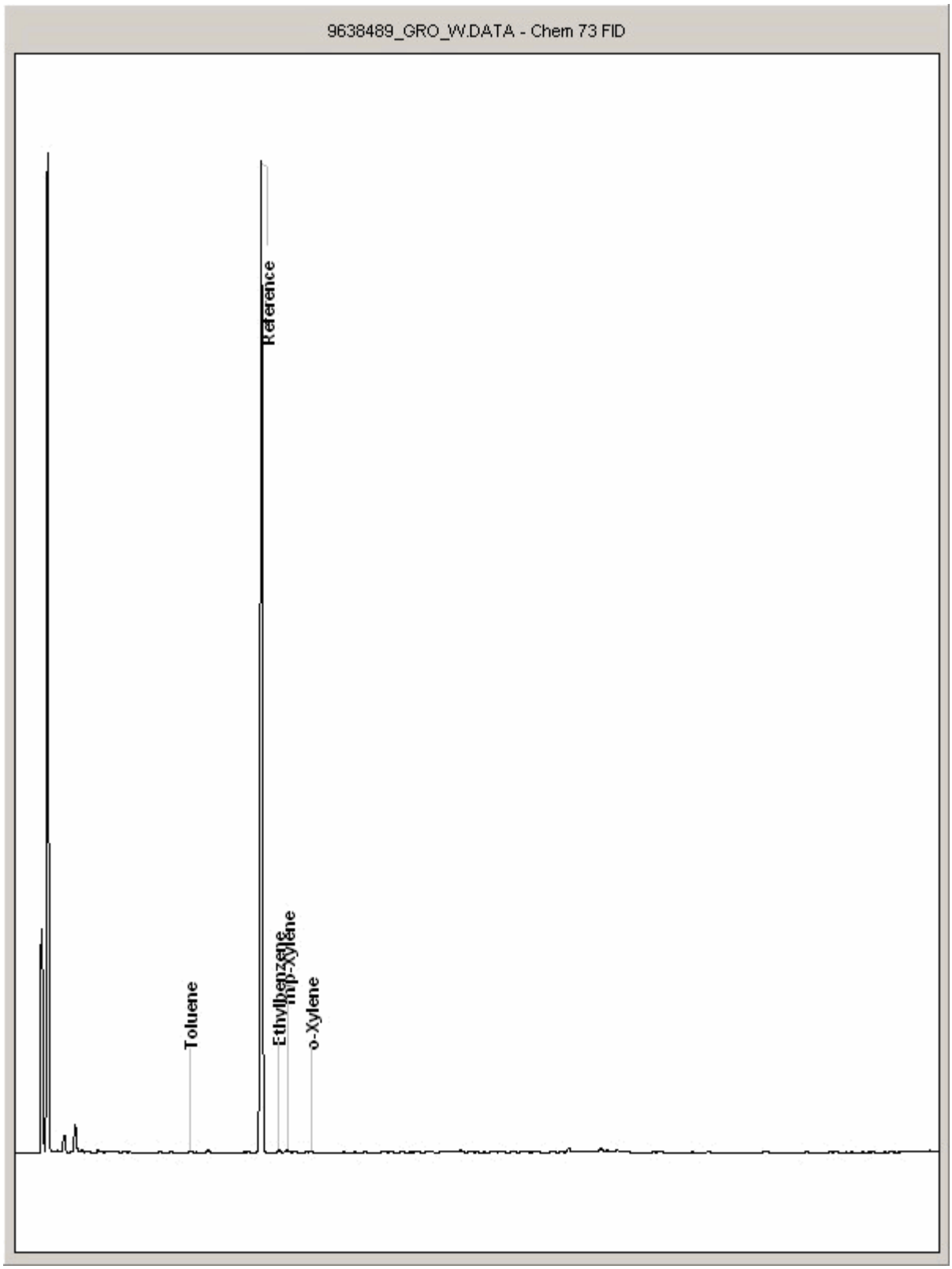
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638489
Sample ID : 6 SUMP

Depth :



CERTIFICATE OF ANALYSIS

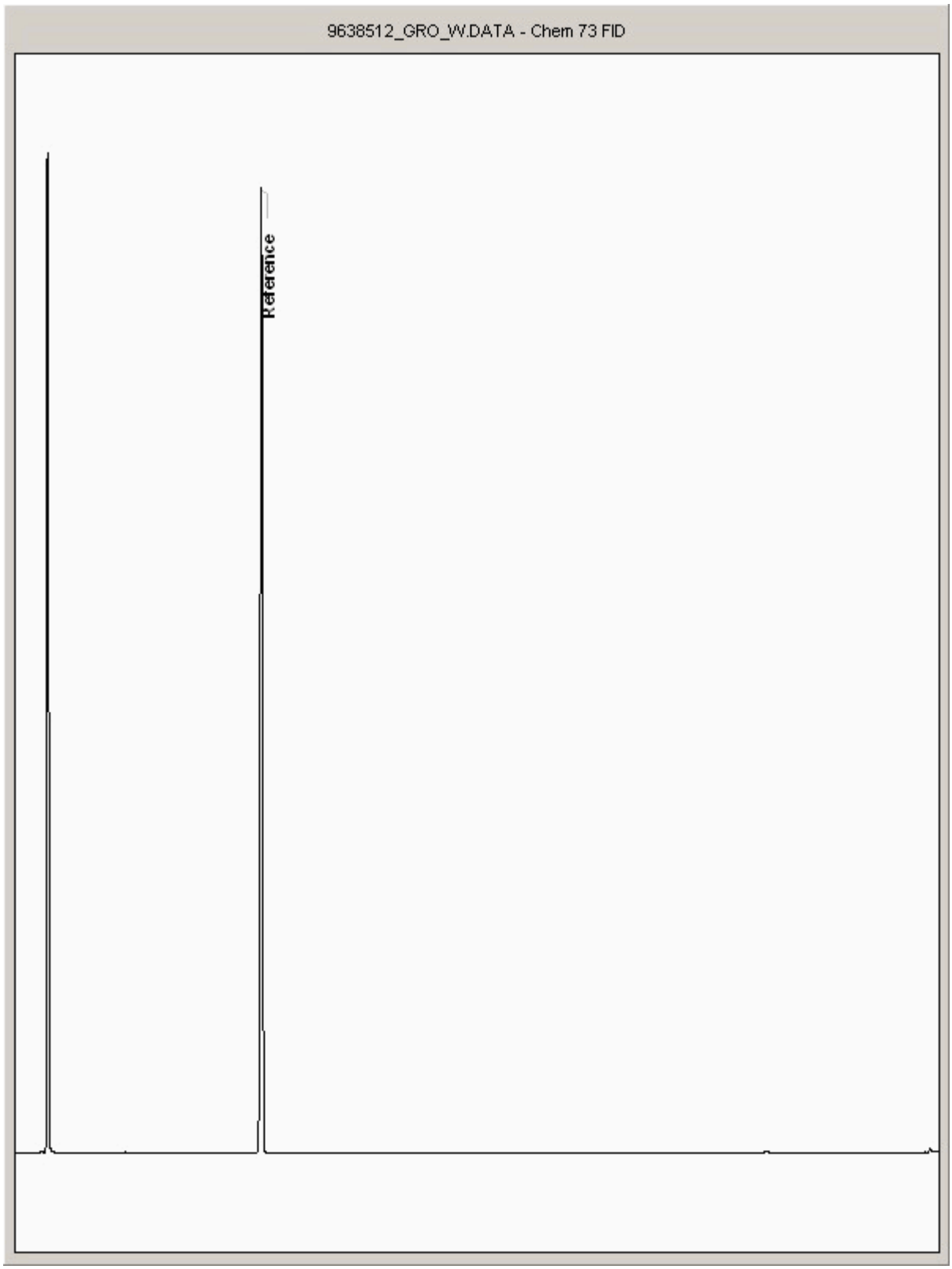
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638512
Sample ID : UD5

Depth :



CERTIFICATE OF ANALYSIS

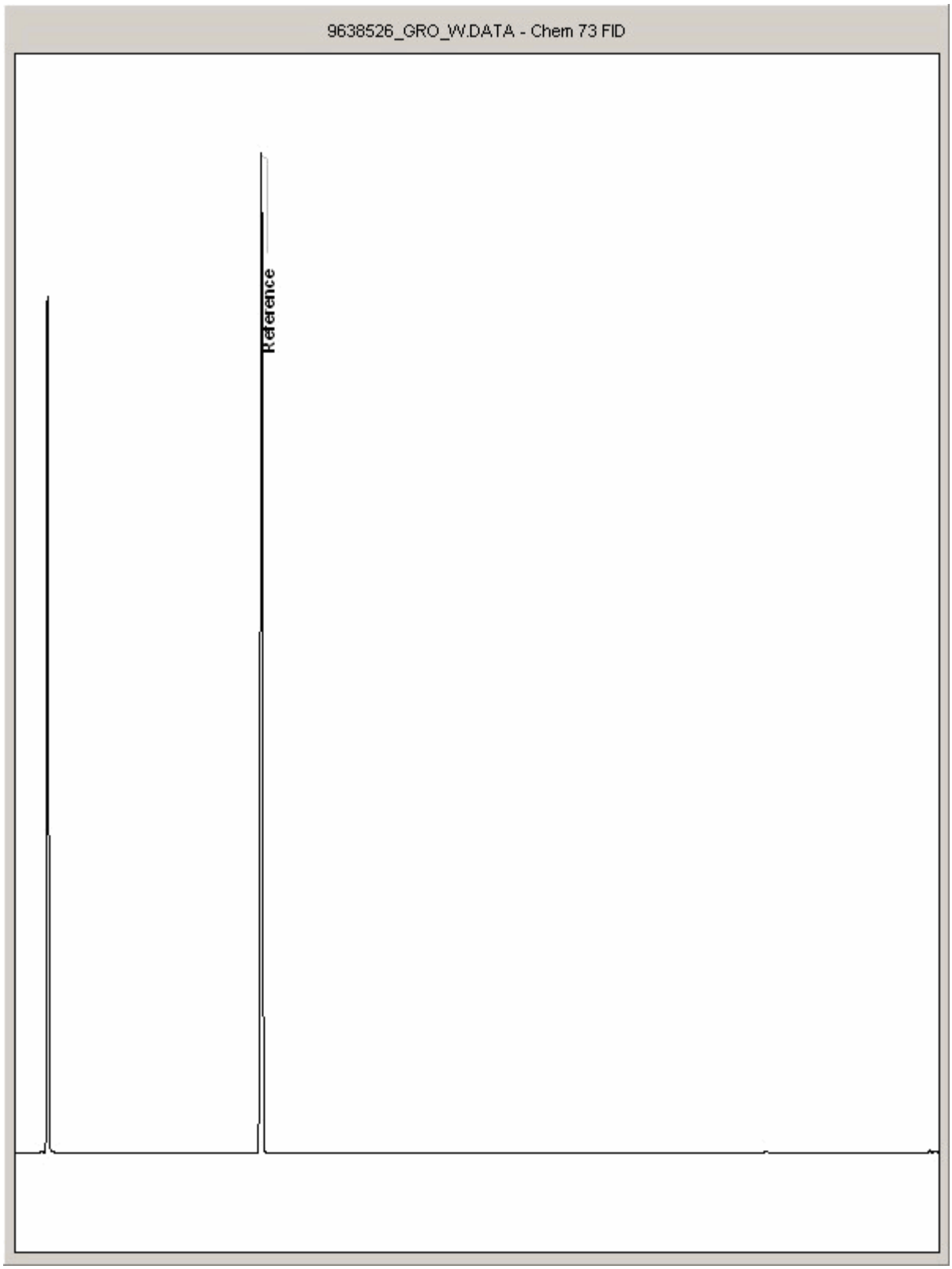
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638526
Sample ID : SW207

Depth :



CERTIFICATE OF ANALYSIS

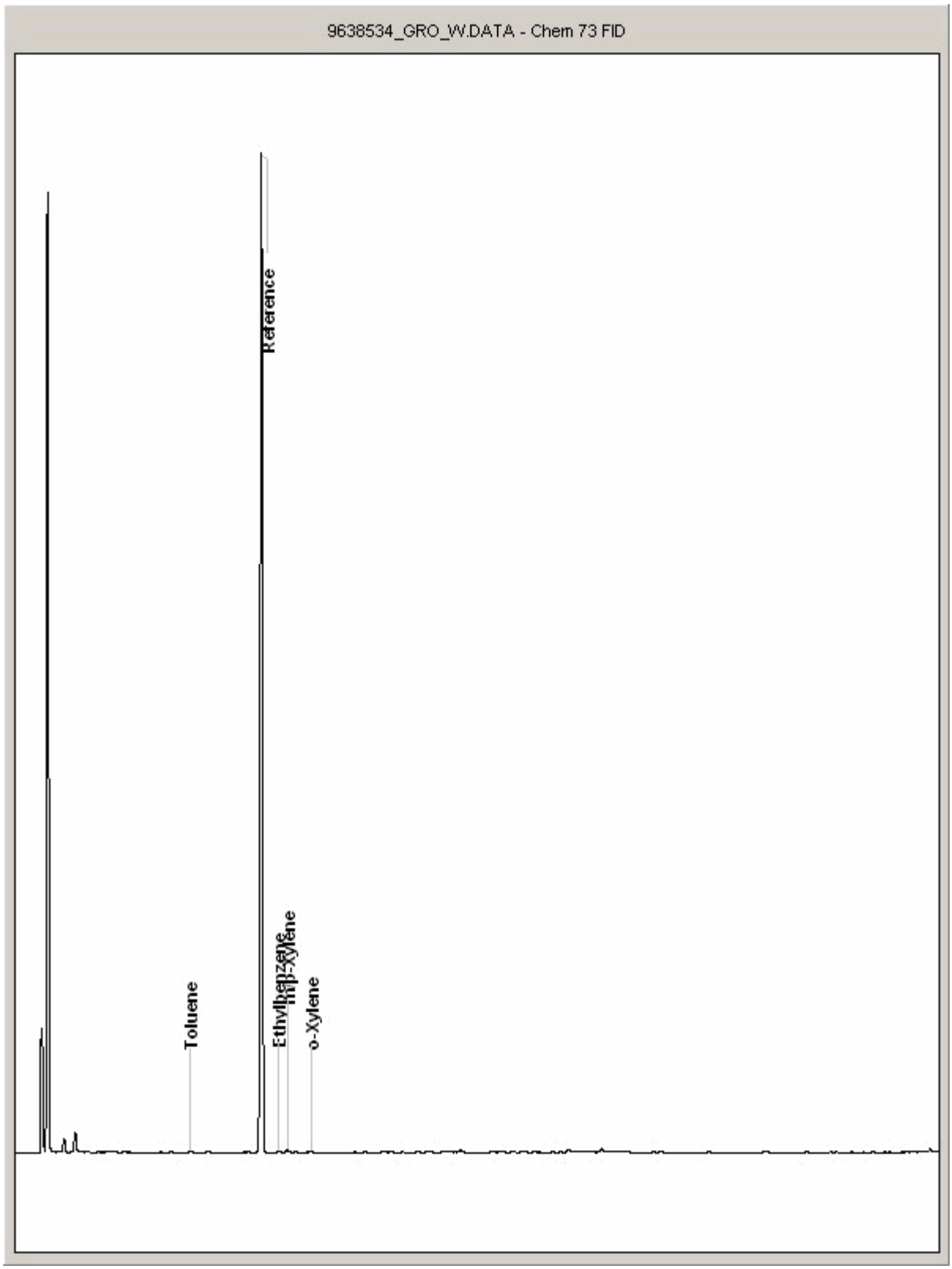
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638534
Sample ID : 1/2 SUMP

Depth :



CERTIFICATE OF ANALYSIS

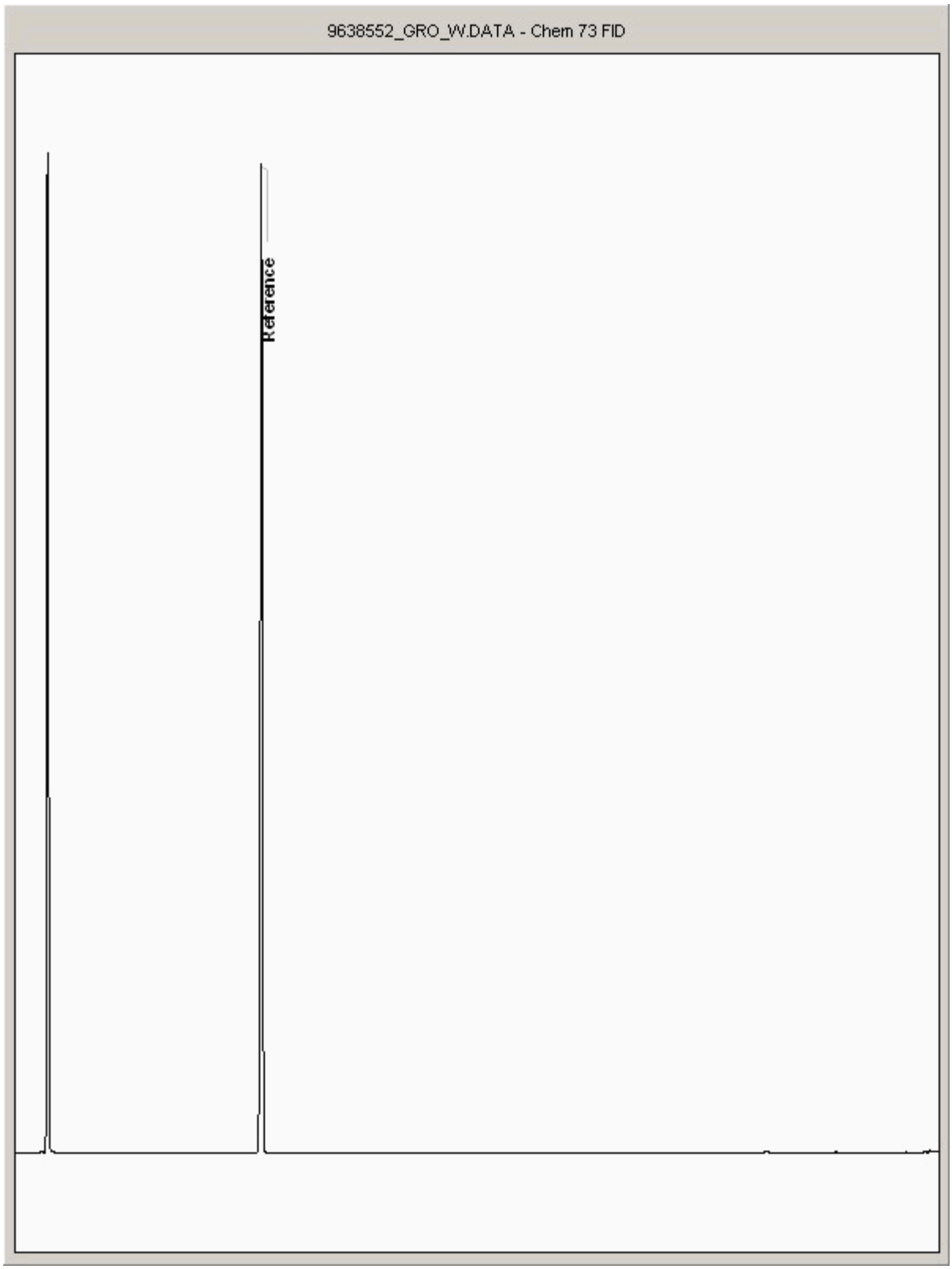
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638552
Sample ID : UD1

Depth :



CERTIFICATE OF ANALYSIS

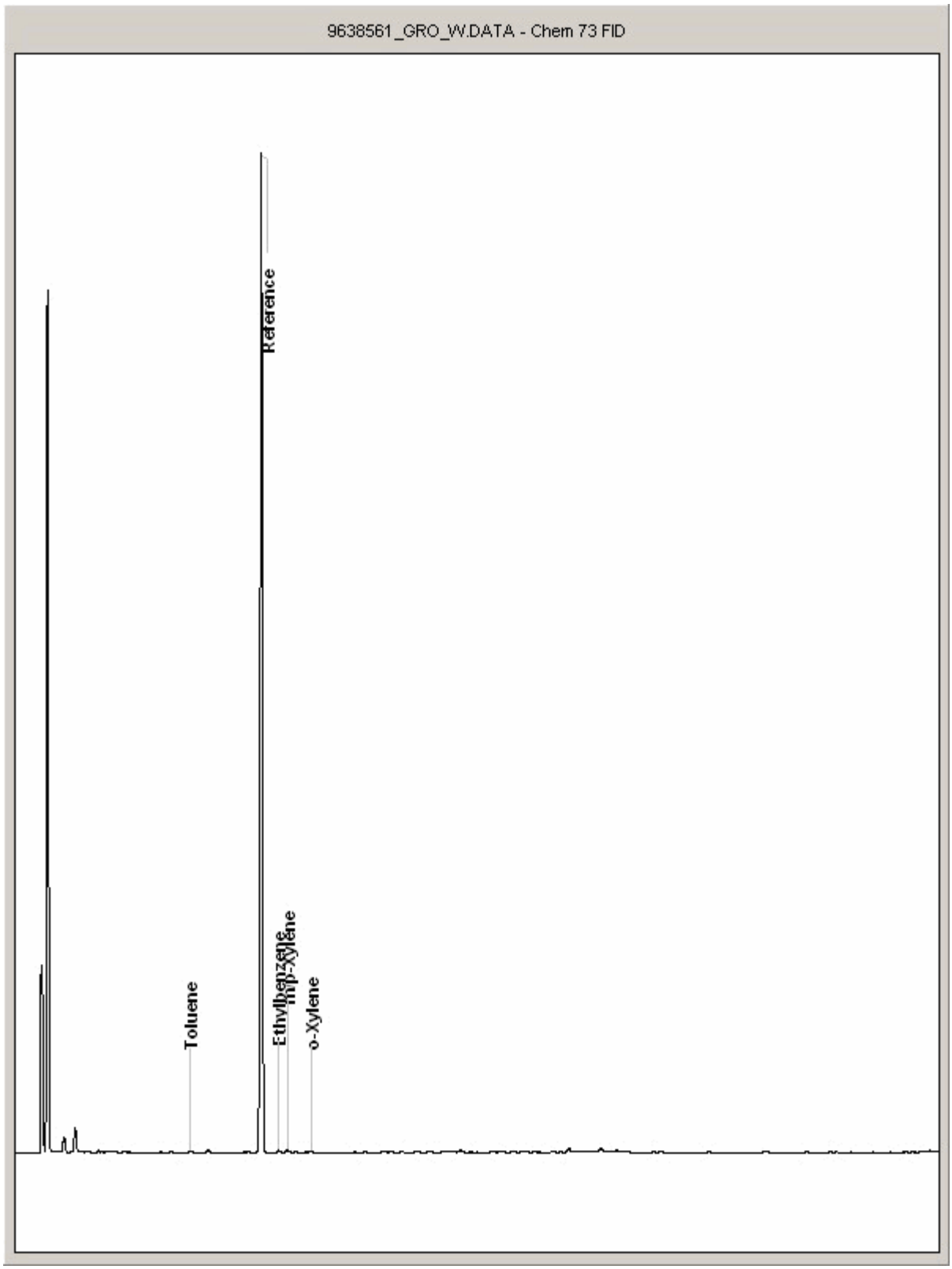
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638561
Sample ID : 3/4 SUMP

Depth :



CERTIFICATE OF ANALYSIS

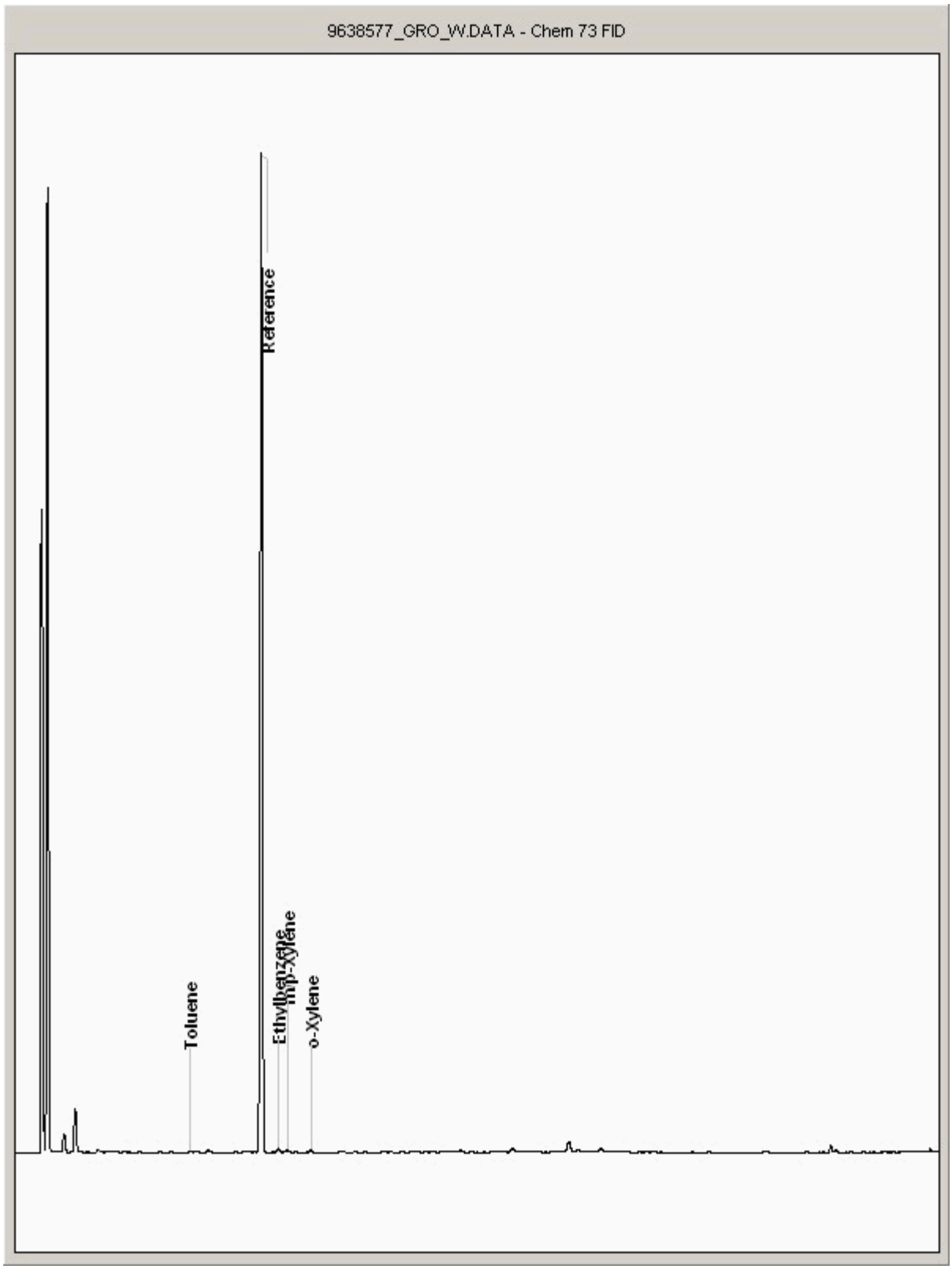
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638577
Sample ID : 5 SUMP

Depth :



CERTIFICATE OF ANALYSIS

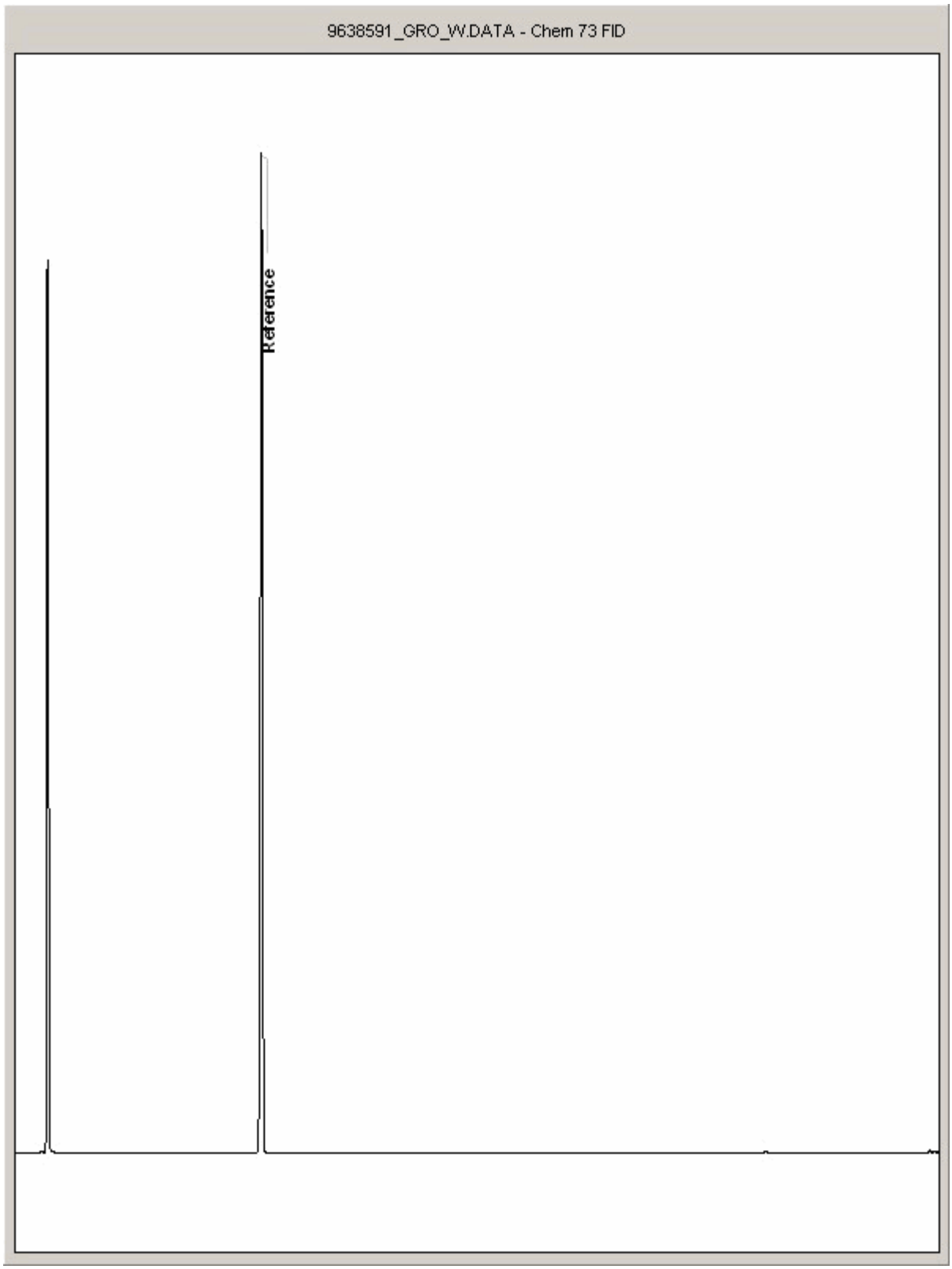
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638591
Sample ID : UD3

Depth :



CERTIFICATE OF ANALYSIS

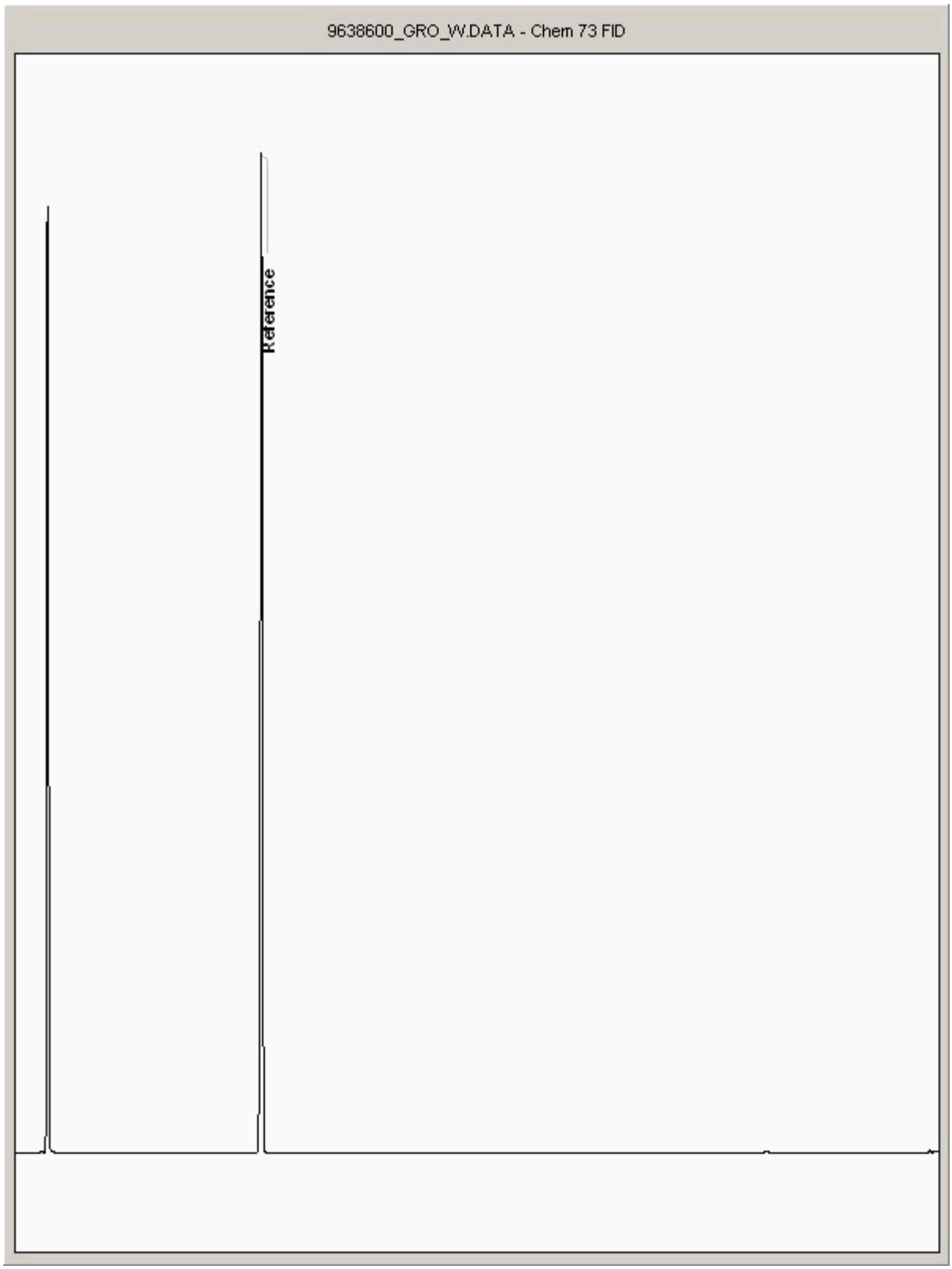
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638600
Sample ID : SW204

Depth :



CERTIFICATE OF ANALYSIS

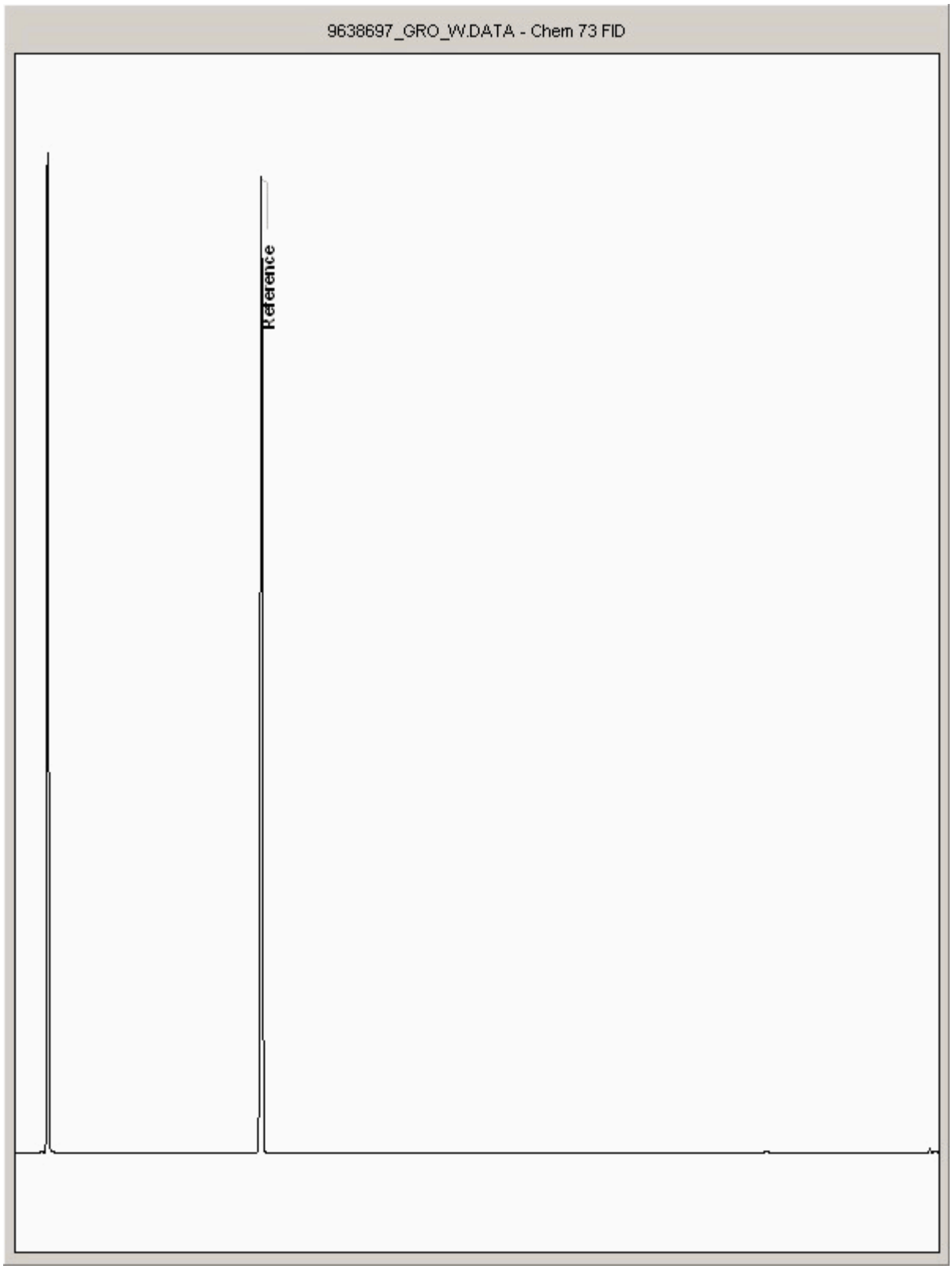
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638697
Sample ID : SW202

Depth :



CERTIFICATE OF ANALYSIS

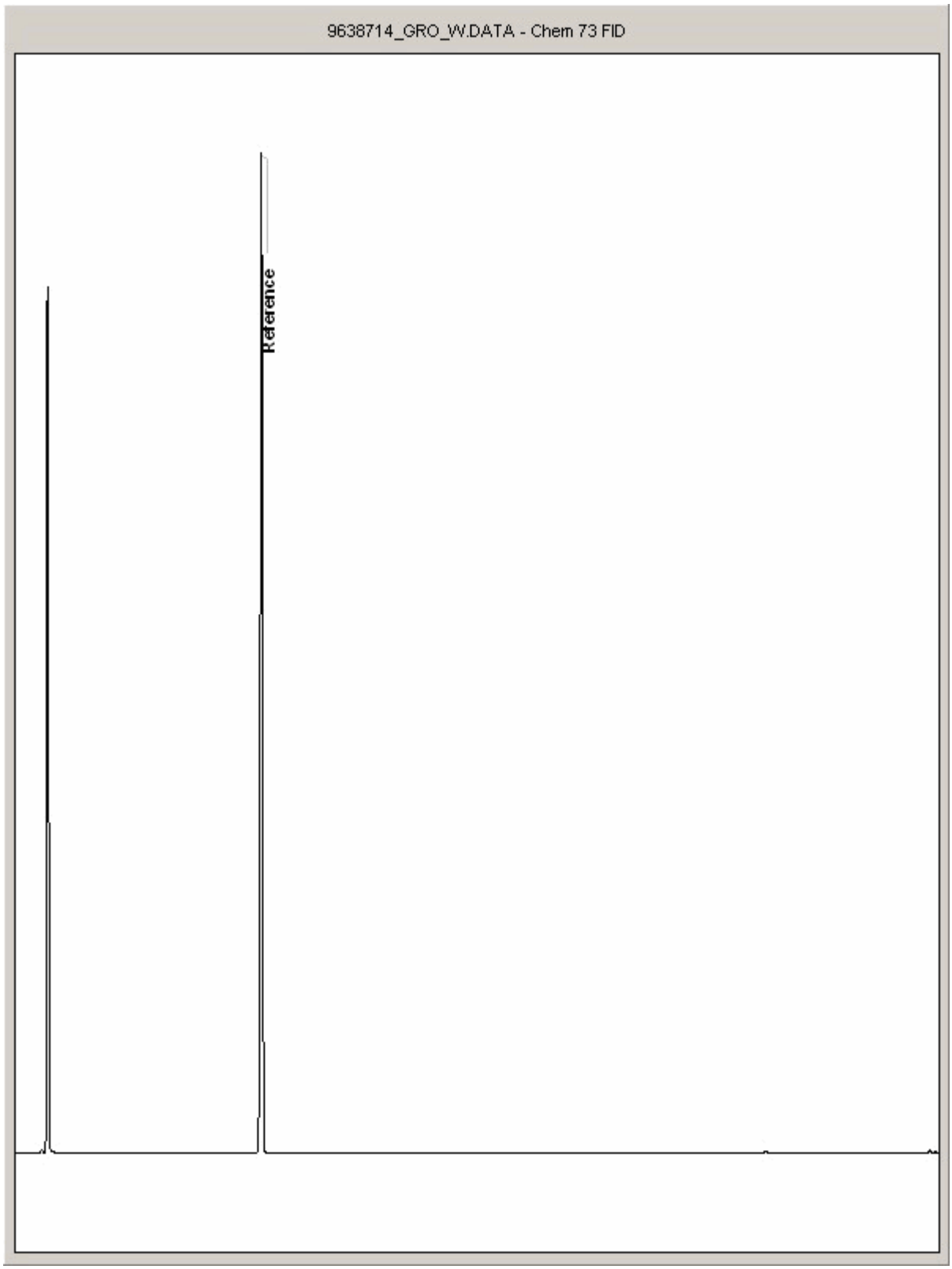
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638714
Sample ID : SW205

Depth :



CERTIFICATE OF ANALYSIS

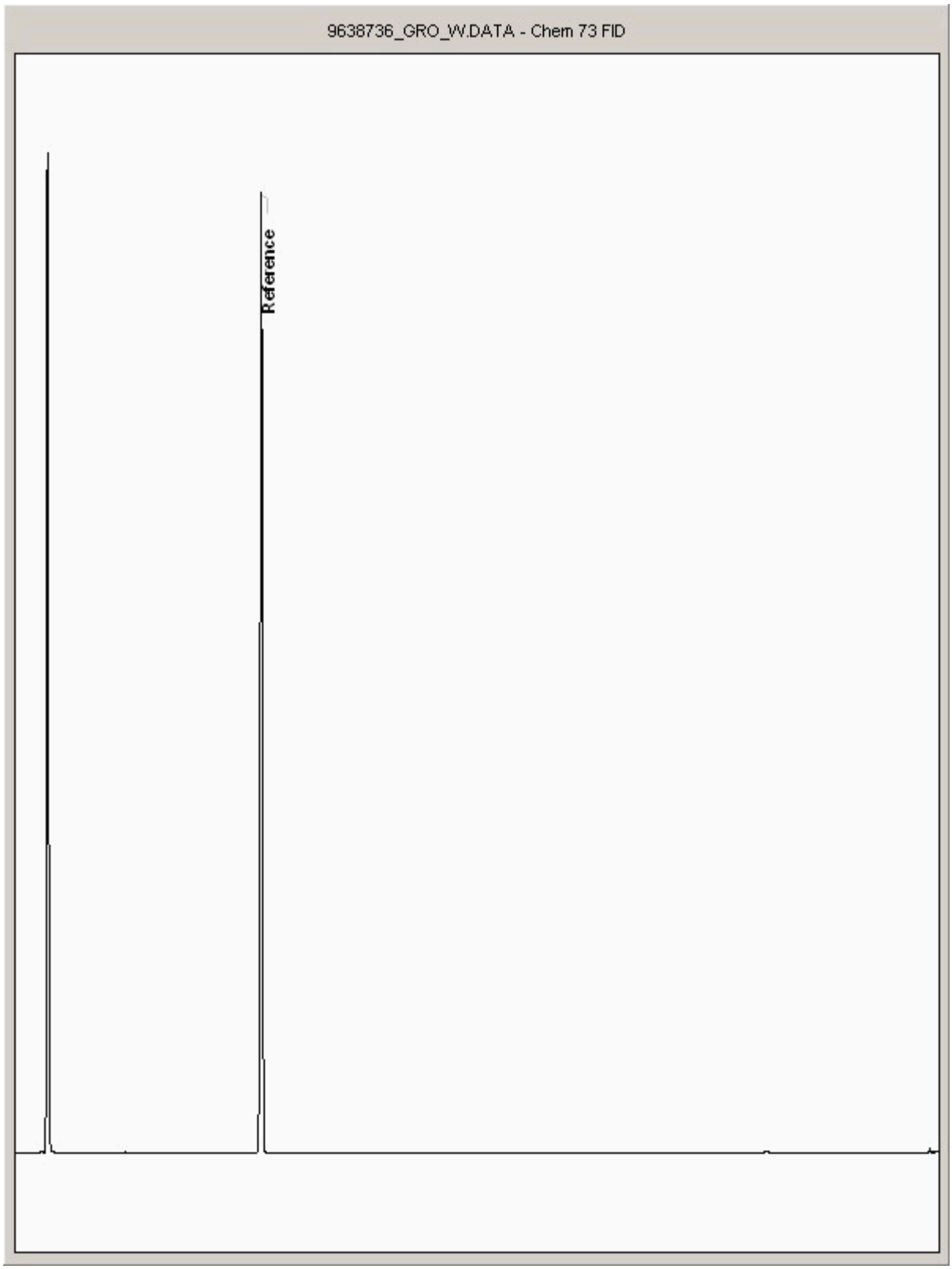
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638736
Sample ID : UD4

Depth :



CERTIFICATE OF ANALYSIS

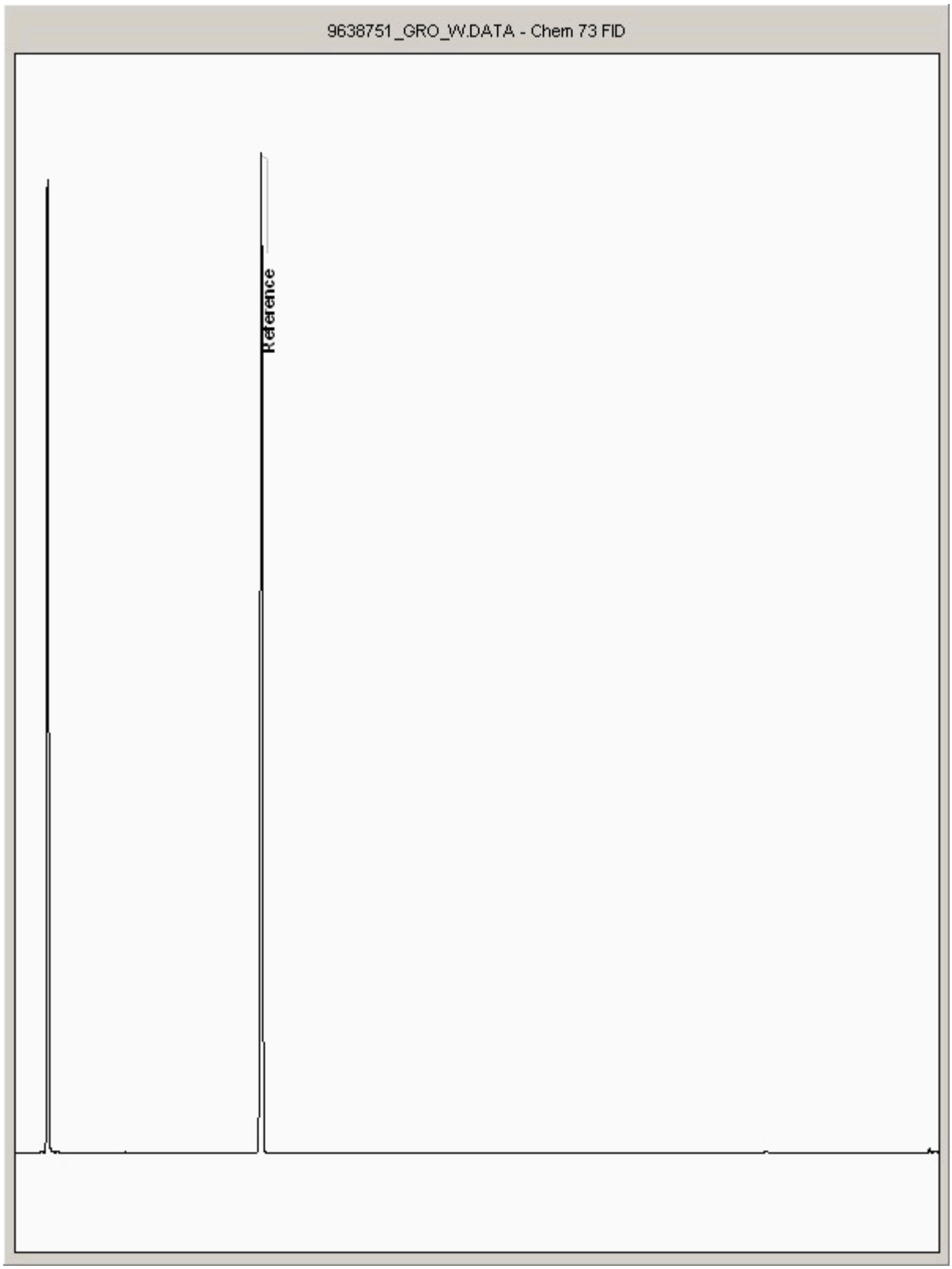
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638751
Sample ID : SW206

Depth :



CERTIFICATE OF ANALYSIS

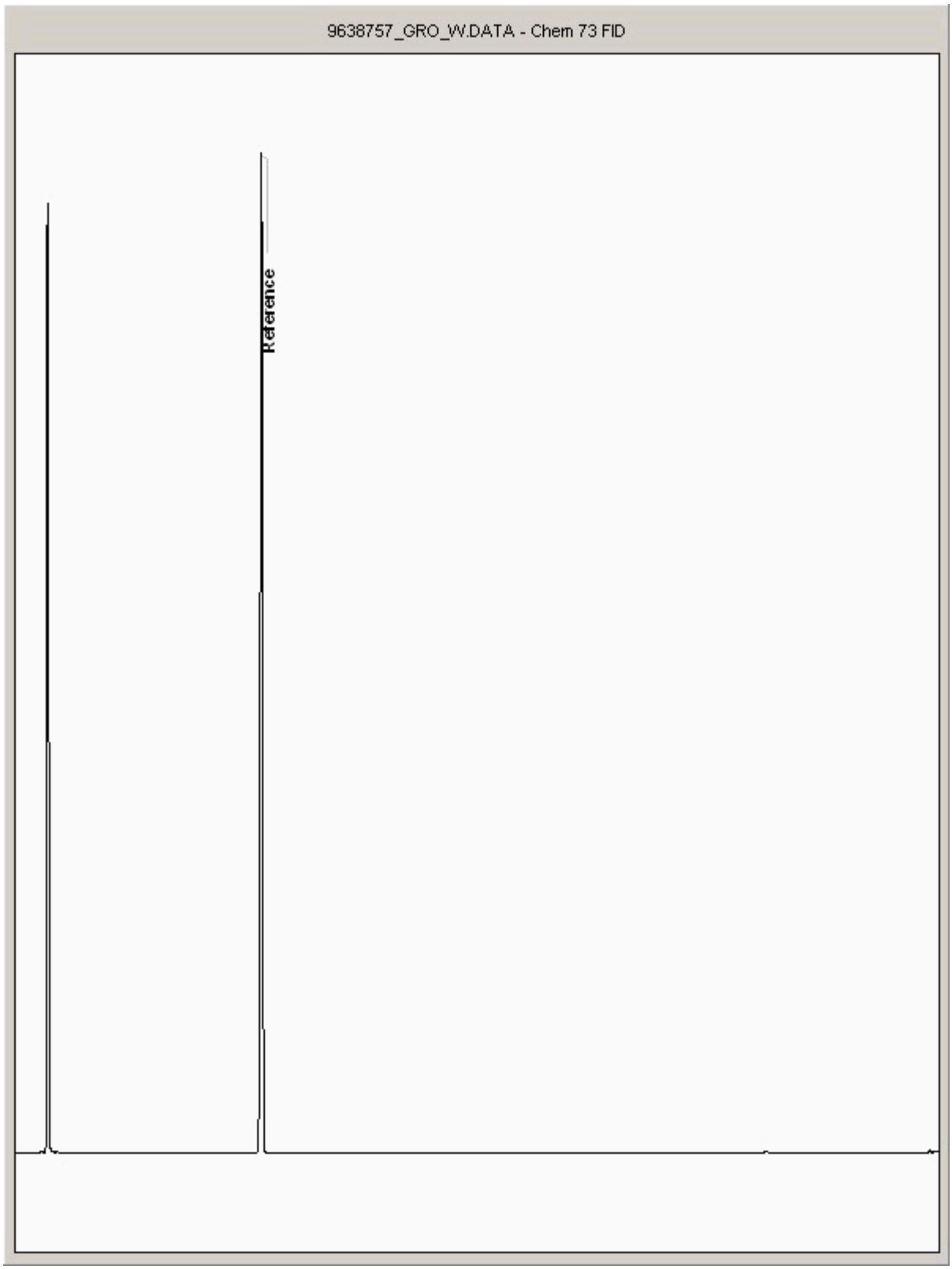
SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 9638757
Sample ID : SW201

Depth :



CERTIFICATE OF ANALYSIS

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA Leach tests, flash point, ammonium as NH4 by the BRE method, VOC TICS, SVOC TICS, TOF-MS SCAN/SEARCH and TOF-MS TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for both soil jars, tubs and volatile jars. All waters and vials will be discarded 10 days after the analysis is completed (e-mailed). All material removed during an asbestos containing material screen and analysed for the presence of asbestos will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be screened in house for the presence of large asbestos containing material fragments/pieces. If no asbestos containing material is found this will be reported as 'no asbestos containing material detected'. If asbestos containing material is detected it will be removed and analysed by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If asbestos containing material is present no further analysis will be undertaken. At no point is the fibre content of the soil sample determined.

7. If no separate volatile sample is supplied by the client, the integrity of the data may be compromised if the laboratory is required to create a sub-sample from the bulk sample -similarly, if a headspace or sediment is present in the volatile sample. This will be flagged up as an invalid VOC on the test schedule or recorded on the log sheet.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. A table containing the date of analysis for each parameter is not routinely included with the report, but is available upon request.

12. Results relate only to the items tested

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 14).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. Our MCERTS accreditation for PAHs by GCMS applies to all product types apart from Kerosene, where naphthalene only is not
accredited.

19. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

20. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

21. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

22. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

23. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials -whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute themajor part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

24. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C4 -C10 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

SOLID MATRICES EXTRACTION SUMMARY

ANALYSIS	D/C OR WET	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
SOLVENT EXTRACTABLE MATTER	D&C	DCM	SOXTHERM	GRAVIMETRIC
CYCLOHEXANE EXT. MATTER	D&C	CYCLOHEXANE	SOXTHERM	GRAVIMETRIC
THIN LAYER CHROMATOGRAPHY	D&C	DCM	SOXTHERM	IATROSCAN
ELEMENTAL SULPHUR	D&C	DCM	SOXTHERM	HPLC
PHENOLS BY GCMS	WET	DCM	SOXTHERM	GCMS
HERBICIDES	D&C	HEXANE:ACETONE	SOXTHERM	GCMS
PESTICIDES	D&C	HEXANE:ACETONE	SOXTHERM	GCMS
EPH (DRO)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH (MIN OIL)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH (CLEANED UP)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH CWG BY GC	D&C	HEXANE:ACETONE	END OVER END	GC-FID
PCB TOT / PCB CON	D&C	HEXANE:ACETONE	END OVER END	GCMS
POLYAROMATIC HYDROCARBONS (MS)	WET	HEXANE:ACETONE	MICROWAVE TM218.	GCMS
C8-C40 (C8-C40) EZ FLASH	WET	HEXANE:ACETONE	SHAKER	GC-EZ
POLYAROMATIC HYDROCARBONS RAPID GC	WET	HEXANE:ACETONE	SHAKER	GC-EZ
SEMI VOLATILE ORGANIC COMPOUNDS	WET	DCM:ACETONE	SONICATE	GCMS

LIQUID MATRICES EXTRACTION SUMMARY

ANALYSIS	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
PAH MS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GCMS
EPH	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
EPH CWG	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
MINERAL OIL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
PCB 7 CONGENERS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GCMS
PCB TOTAL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GCMS
SVOC	DCM	LIQUID/LIQUID SHAKE	GCMS
FREE SULPHUR	DCM	SOLID PHASE EXTRACTION	HPLC
PEST OCP/OPP	DCM	LIQUID/LIQUID SHAKE	GCMS
TRIAZINE HERBS	DCM	LIQUID/LIQUID SHAKE	GCMS
PHENOLS MS	DCM	SOLID PHASE EXTRACTION	GCMS
TPH by INFRARED (IR)	TCE	LIQUID/LIQUID SHAKE	HPLC
MINERAL OIL by IR	TCE	LIQUID/LIQUID SHAKE	HPLC
GLYCOLS	NONE	DIRECT INJECTION	GCMS

Identification of Asbestos in Bulk Materials

The results for asbestos identification for soil samples are obtained from possible Asbestos Containing Material, removed during the 'Screening of soils for Asbestos Containing Materials', which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -
Trace -Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in MDHS 100.

The identification of asbestos containing materials falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Last Updated : 2010/09/08

SDG:	140711-36	**Location:**	Phase 2-3	**Order Number:**	7043 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	278000
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	277984

Appendix
General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before presevation was performed
§	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -
Trace -Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

ALcontrol Laboratories

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CWM Environmental Ltd
Nantyclaws Landfill Site
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Carmarthen
Carmarthenshire
SA32 8BG

Attention: Mike Lewis

CERTIFICATE OF ANALYSIS

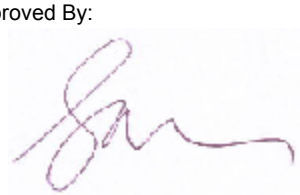
Date:	27 August 2014
Customer:	H_CWMENV_NAN
Sample Delivery Group (SDG):	140815-115
Your Reference:	
Location:	Phase 2-3
Report No:	281757

We received 23 samples on Friday August 15, 2014 and 23 of these samples were scheduled for analysis which was completed on Wednesday August 27, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	140815-115	**Location:**	Phase 2-3	**Order Number:**	7366L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	281757
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
9814579	BH 3/4			12/08/2014
9814583	BH 5/2			12/08/2014
9814582	BH208			12/08/2014
9814573	CELL 5			14/08/2014
9814575	CELL 6			14/08/2014
9814577	CELL 7			14/08/2014
9814571	CELL 1/2			14/08/2014
9814572	CELL 3/4			14/08/2014
9814570	HOLDING LAGOON			14/08/2014
9814585	NACW203			12/08/2014
9814588	NACW205			12/08/2014
9814591	NACW212			12/08/2014
9814581	NACW228			12/08/2014
9814561	SW201			14/08/2014
9814562	SW202			14/08/2014
9814563	SW204			14/08/2014
9814565	SW205			14/08/2014
9814566	SW206			14/08/2014
9814568	SW207			14/08/2014
9814592	UD1			12/08/2014
9814594	UD3			12/08/2014
9814595	UD4			12/08/2014
9814596	UD5			12/08/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	140815-115	**Location:**	Phase 2-3	**Order Number:**	7366L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	281757
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			9814579	BH 3/4			500ml Plastic (ALE2
			9814583	BH 5/2			H2SO4 (ALE244)
			9814582	BH208			500ml Plastic (ALE2
			9814573	CELL 5			H2SO4 (ALE244)
			9814575	CELL 6			500ml Plastic (ALE2
			9814577	CELL 7			H2SO4 (ALE244)
			9814571	CELL 1/2			500ml Plastic (ALE2
			9814572	CELL 3/4			H2SO4 (ALE244)
			9814570	HOLDING LAGOON			500ml Plastic (ALE2
			9814585	NACW203			H2SO4 (ALE244)
			9814588	NACW205			500ml Plastic (ALE2
			9814591	NACW212			H2SO4 (ALE244)
			9814581	NACW228			500ml Plastic (ALE2
			9814561	SW201			H2SO4 (ALE244)
			9814562	SW202			500ml Plastic (ALE2
			9814563	SW204			H2SO4 (ALE244)
			9814565	SW205			500ml Plastic (ALE2
			9814566	SW206			H2SO4 (ALE244)
			9814568	SW207			500ml Plastic (ALE2
			9814592	UD1			H2SO4 (ALE244)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 23					X X X X X X X X X X X X X X X X X X X X X X X
Anions by Kone (w)	All	NDPs: 0 Tests: 23					X X X X X X X X X X X X X X X X X X X X X X X
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 23					X X X X X X X X X X X X X X X X X X X X X X X
pH Value	All	NDPs: 0 Tests: 6					X X X X X X
Suspended Solids	All	NDPs: 0 Tests: 6					X X X X X X

CERTIFICATE OF ANALYSIS

SDG:	140815-115	**Location:**	Phase 2-3	**Order Number:**	7366L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	281757
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	9814594	9814595	9814596
			Customer Sample Reference	UD3	UD4	UD5
			AGS Reference			
			Depth (m)			
			Container	500ml Plastic (ALE2 / H2SO4 (ALE244)	500ml Plastic (ALE2 / H2SO4 (ALE244)	500ml Plastic (ALE2 / H2SO4 (ALE244)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 23		X	X	X
Anions by Kone (w)	All	NDPs: 0 Tests: 23	X	X	X	
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 23	X	X	X	

CERTIFICATE OF ANALYSIS

SDG:	140815-115	**Location:**	Phase 2-3	**Order Number:**	7366L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	281757
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH 3/4	BH 5/2	BH208	CELL 5	CELL 6	CELL 7
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	12/08/2014	12/08/2014	12/08/2014	14/08/2014	14/08/2014	14/08/2014
			Sample Time	.	.	.	.	.	.
			Date Received	15/08/2014	15/08/2014	15/08/2014	15/08/2014	15/08/2014	15/08/2014
			SDG Ref	140815-115	140815-115	140815-115	140815-115	140815-115	140815-115
			Lab Sample No.(s)	9814579	9814583	9814582	9814573	9814575	9814577
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		0.334 #	<0.2 #	<0.2 #	1200 #	1440 #	1470 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.269 #	0.442 #	0.48 #	17.5 #	22.3 #	20.1 #
Chloride	<2 mg/l	TM184		17.6 #	18.2 #	17.9 #	3200 #	5160 #	3660 #

CERTIFICATE OF ANALYSIS

SDG:	140815-115	**Location:**	Phase 2-3	**Order Number:**	7366L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	281757
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	CELL 1/2	CELL 3/4	HOLDING LAGOON	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	14/08/2014	14/08/2014	14/08/2014	12/08/2014	12/08/2014	12/08/2014
			Sample Time	.	.	.	.	.	.
			Date Received	15/08/2014	15/08/2014	15/08/2014	15/08/2014	15/08/2014	15/08/2014
			SDG Ref	140815-115	140815-115	140815-115	140815-115	140815-115	140815-115
			Lab Sample No.(s)	9814571	9814572	9814570	9814585	9814588	9814591
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		468 #	458 #	1200 #	0.386 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		7.51 #	8.22 #	17.6 #	0.494 #	0.451 #	0.271 #
Chloride	<2 mg/l	TM184		1270 #	1380 #	3200 #	21.9 #	18.2 #	14.4 #

CERTIFICATE OF ANALYSIS

SDG:	140815-115	**Location:**	Phase 2-3	**Order Number:**	7366L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	281757
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW228	SW201	SW202	SW204	SW205	SW206
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	12/08/2014	14/08/2014	14/08/2014	14/08/2014	14/08/2014	14/08/2014
			Sample Time	.	.	.	.	.	.
			Date Received	15/08/2014	15/08/2014	15/08/2014	15/08/2014	15/08/2014	15/08/2014
			SDG Ref	140815-115	140815-115	140815-115	140815-115	140815-115	140815-115
			Lab Sample No.(s)	9814581	9814561	9814562	9814563	9814565	9814566
			AGS Reference						
Suspended solids, Total	<2 mg/l	TM022			1850 #	36.5 #	<2 #	<2 #	<2 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	0.21 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.295 #	0.268 #	0.419 #	0.393 #	0.426 #	0.18 #
Chloride	<2 mg/l	TM184		18.9 #	14.6 #	30.9 #	27.5 #	29.8 #	22.3 #
pH	<1 pH Units	TM256			7.46 #	7.67 #	7.93 #	8.02 #	7.41 #

CERTIFICATE OF ANALYSIS

SDG:	140815-115	**Location:**	Phase 2-3	**Order Number:**	7366L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	281757
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW207	UD1	UD3	UD4	UD5
			Depth (m)	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	14/08/2014	12/08/2014	12/08/2014	12/08/2014	12/08/2014
			Sample Time	.	.	.	.	.
			Date Received	15/08/2014	15/08/2014	15/08/2014	15/08/2014	15/08/2014
			SDG Ref	140815-115	140815-115	140815-115	140815-115	140815-115
			Lab Sample No.(s)	9814568	9814592	9814594	9814595	9814596
			AGS Reference					
Suspended solids, Total	<2 mg/l	TM022		5.5 #				
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		0.279 #	<0.2 #	<0.2 #	0.221 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.437 #	0.403 #	0.301 #	0.292 #	0.29 #
Chloride	<2 mg/l	TM184		47.6 #	23.7 #	19.6 #	20.5 #	18.9 #
pH	<1 pH Units	TM256		7.66 #				

CERTIFICATE OF ANALYSIS

SDG:	140815-115	**Location:**	Phase 2-3	**Order Number:**	7366L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	281757
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM022	Method 2540D, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part120 1981;BS EN 872	Determination of total suspended solids in waters		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM120	Method 2510B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part 9:1970	Determination of Electrical Conductivity using a Conductivity Meter		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	140815-115	**Location:**	Phase 2-3	**Order Number:**	7366L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	281757
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	9814582	9814579	9814583	9814573	9814575	9814577	9814571	9814572	9814570	9814585
Customer Sample Ref.	BH208	BH 3/4	BH 5/2	CELL 5	CELL 6	CELL 7	CELL 1/2	CELL 3/4	HOLDING LAGOON	NACW203
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	27-Aug-2014	26-Aug-2014	27-Aug-2014	27-Aug-2014	27-Aug-2014	27-Aug-2014	27-Aug-2014	27-Aug-2014	27-Aug-2014	26-Aug-2014
Anions by Kone (w)	22-Aug-2014	26-Aug-2014	22-Aug-2014	26-Aug-2014	26-Aug-2014	26-Aug-2014	26-Aug-2014	26-Aug-2014	26-Aug-2014	26-Aug-2014
Conductivity (at 20 deg.C)	22-Aug-2014	22-Aug-2014	22-Aug-2014	22-Aug-2014	22-Aug-2014	22-Aug-2014	22-Aug-2014	22-Aug-2014	22-Aug-2014	22-Aug-2014

Lab Sample No(s)	9814588	9814591	9814581	9814561	9814562	9814563	9814565	9814566	9814568	9814592
Customer Sample Ref.	NACW205	NACW212	NACW228	SW201	SW202	SW204	SW205	SW206	SW207	UD1
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	26-Aug-2014	27-Aug-2014	27-Aug-2014	27-Aug-2014	27-Aug-2014	27-Aug-2014	26-Aug-2014	27-Aug-2014	27-Aug-2014	27-Aug-2014
Anions by Kone (w)	22-Aug-2014	22-Aug-2014	26-Aug-2014	26-Aug-2014	22-Aug-2014	22-Aug-2014	22-Aug-2014	26-Aug-2014	22-Aug-2014	26-Aug-2014
Conductivity (at 20 deg.C)	22-Aug-2014	22-Aug-2014	22-Aug-2014	22-Aug-2014	22-Aug-2014	22-Aug-2014	22-Aug-2014	22-Aug-2014	22-Aug-2014	22-Aug-2014
pH Value				27-Aug-2014	27-Aug-2014	27-Aug-2014	27-Aug-2014	27-Aug-2014	26-Aug-2014	
Suspended Solids				22-Aug-2014	26-Aug-2014	22-Aug-2014	22-Aug-2014	22-Aug-2014	22-Aug-2014	

Lab Sample No(s)	9814594	9814595	9814596
Customer Sample Ref.	UD3	UD4	UD5
AGS Ref.			
Depth			
Type	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	27-Aug-2014	26-Aug-2014	27-Aug-2014
Anions by Kone (w)	22-Aug-2014	22-Aug-2014	26-Aug-2014
Conductivity (at 20 deg.C)	22-Aug-2014	22-Aug-2014	22-Aug-2014

SDG:	140815-115	**Location:**	Phase 2-3	**Order Number:**	7366L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	281757
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH_4 by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Holding time exceeded before sample received**
5	**Samples exceeded holding time before presevation was performed**
§	**Sampled on date not provided**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to sampled on date**
&	**Sample Holding Time exceeded - Late arrival of instructions.**

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

ALcontrol Laboratories

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Website: www.alcontrol.com

CWM Environmental Ltd
Nantyclaws Landfill Site
Llanddarg Road
Carmarthen
Carmarthenshire
SA32 8BG

Attention: Mike Lewis

CERTIFICATE OF ANALYSIS

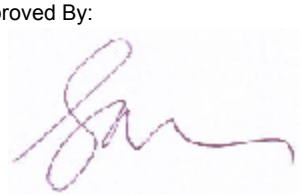
Date:	03 October 2014
Customer:	H_CWMENV_NAN
Sample Delivery Group (SDG):	140930-11
Your Reference:	
Location:	Phase 2-3
Report No:	286487

We received 10 samples on Monday September 29, 2014 and 10 of these samples were scheduled for analysis which was completed on Friday October 03, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:



Sonia McWhan

Operations Manager

Alcontrol Laboratories is a trading division of ALcontrol UK Limited
Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No.

CERTIFICATE OF ANALYSIS

SDG:	140930-11	**Location:**	Phase 2-3	**Order Number:**	7398L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	286487
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
10081617	BH3/4			22/09/2014
10081614	BH208			22/09/2014
10081613	BH5/02			22/09/2014
10081612	NACW203			22/09/2014
10081610	NACW205			22/09/2014
10081606	NACW212			22/09/2014
10081602	NACW228			22/09/2014
10081626	UD1			22/09/2014
10081624	UD3			22/09/2014
10081621	UD4			22/09/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	140930-11	**Location:**	Phase 2-3	**Order Number:**	7398L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	286487
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			10081617	BH3/4			500ml Plastic (ALE2
			10081614	BH208			H2SO4 (ALE244)
			10081613	BH5/02			500ml Plastic (ALE2
			10081612	NACW203			H2SO4 (ALE244)
			10081610	NACW205			500ml Plastic (ALE2
			10081606	NACW212			H2SO4 (ALE244)
			10081602	NACW228			500ml Plastic (ALE2
			10081626	UD1			H2SO4 (ALE244)
			10081624	UD3			500ml Plastic (ALE2
			10081621	UD4			H2SO4 (ALE244)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 10		X	X	X	X	X	X	X	X	X	X	X	X
Anions by Kone (w)	All	NDPs: 0 Tests: 10	X	X	X	X	X	X	X	X	X	X	X	X	X	
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 10	X	X	X	X	X	X	X	X	X	X	X	X	X	

CERTIFICATE OF ANALYSIS

SDG:	140930-11	**Location:**	Phase 2-3	**Order Number:**	7398L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	286487
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/4	BH208	BH5/02	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	22/09/2014	22/09/2014	22/09/2014	22/09/2014	22/09/2014	22/09/2014
			Sample Time	.	.	.	.	.	.
			Date Received	29/09/2014	29/09/2014	29/09/2014	29/09/2014	29/09/2014	29/09/2014
			SDG Ref	140930-11	140930-11	140930-11	140930-11	140930-11	140930-11
			Lab Sample No.(s)	10081617	10081614	10081613	10081612	10081610	10081606
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	2.15 #	<0.2 #	0.453 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.39 #	0.457 #	0.442 #	0.479 #	0.445 #	0.334 #
Chloride	<2 mg/l	TM184		9.8 #	15.9 #	18.8 #	21 #	18.4 #	16.7 #

CERTIFICATE OF ANALYSIS

SDG:	140930-11	**Location:**	Phase 2-3	**Order Number:**	7398L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	286487
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	NACW228	UD1	UD3	UD4		
			Depth (m)	.	.	.	.		
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)		
			Date Sampled	22/09/2014	22/09/2014	22/09/2014	22/09/2014		
			Sample Time	.	.	.	.		
			Date Received	29/09/2014	29/09/2014	29/09/2014	29/09/2014		
			SDG Ref	140930-11	140930-11	140930-11	140930-11		
			Lab Sample No.(s)	10081602	10081626	10081624	10081621		
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	<0.2 #	<0.2 #	<0.2 #		
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.436 #	0.25 #	0.342 #	0.328 #		
Chloride	<2 mg/l	TM184		14.7 #	21.7 #	16.7 #	21.6 #		

CERTIFICATE OF ANALYSIS

SDG:	140930-11	**Location:**	Phase 2-3	**Order Number:**	7398L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	286487
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM120	Method 2510B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part 9:1970	Determination of Electrical Conductivity using a Conductivity Meter		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	140930-11	**Location:**	Phase 2-3	**Order Number:**	7398L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	286487
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	10081614	10081617	10081613	10081612	10081610	10081606	10081602	10081626	10081624	10081621
Customer Sample Ref.	BH208	BH3/4	BH5/02	NACW203	NACW205	NACW212	NACW228	UD1	UD3	UD4
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	02-Oct-2014	02-Oct-2014	02-Oct-2014	02-Oct-2014	02-Oct-2014	02-Oct-2014	02-Oct-2014	02-Oct-2014	02-Oct-2014	02-Oct-2014
Anions by Kone (w)	03-Oct-2014	03-Oct-2014	03-Oct-2014	03-Oct-2014	03-Oct-2014	03-Oct-2014	03-Oct-2014	03-Oct-2014	03-Oct-2014	03-Oct-2014
Conductivity (at 20 deg.C)	02-Oct-2014	02-Oct-2014	02-Oct-2014	02-Oct-2014	02-Oct-2014	02-Oct-2014	02-Oct-2014	02-Oct-2014	02-Oct-2014	02-Oct-2014

SDG:	140930-11	**Location:**	Phase 2-3	**Order Number:**	7398L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	286487
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Holding time exceeded before sample received**
5	**Samples exceeded holding time before presevation was performed**
§	**Sampled on date not provided**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to sampled on date**
&	**Sample Holding Time exceeded - Late arrival of instructions.**

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

ALcontrol Laboratories

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CWM Environmental Ltd
Nantyclaws Landfill Site
Llanddarg Road
Carmarthen
Carmarthenshire
SA32 8BG

Attention: Mike Lewis

CERTIFICATE OF ANALYSIS

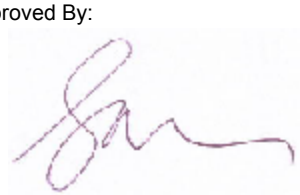
Date:	07 October 2014
Customer:	H_CWMENV_NAN
Sample Delivery Group (SDG):	140930-4
Your Reference:	
Location:	Phase 2-3
Report No:	286828

We received 12 samples on Monday September 29, 2014 and 12 of these samples were scheduled for analysis which was completed on Tuesday October 07, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:



Sonia McWhan

Operations Manager

Alcontrol Laboratories is a trading division of ALcontrol UK Limited
Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No.

CERTIFICATE OF ANALYSIS

SDG:	140930-4	**Location:**	Phase 2-3	**Order Number:**	7398L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	286828
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
10080873	Cell 5			25/09/2014
10080875	Cell 6			25/09/2014
10080877	Cell 7			25/09/2014
10080871	Cell 1/2			25/09/2014
10080872	Cell 3/4			25/09/2014
10080870	Holding Lagoon			25/09/2014
10080863	SW201			23/09/2014
10080865	SW202			23/09/2014
10080866	SW204			23/09/2014
10080867	SW205			23/09/2014
10080868	SW206			23/09/2014
10080869	SW207			23/09/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	140930-4	**Location:**	Phase 2-3	**Order Number:**	7398L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	286828
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

		Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
		10080873	Cell 5			500ml Plastic (ALE2
		10080875	Cell 6			H2SO4 (ALE244)
		10080877	Cell 7			500ml Plastic (ALE2
		10080871	Cell 1/2			H2SO4 (ALE244)
		10080872	Cell 3/4			500ml Plastic (ALE2
		10080870	Holding Lagoon			H2SO4 (ALE244)
		10080863	SW201			500ml Plastic (ALE2
		10080865	SW202			H2SO4 (ALE244)
		10080866	SW204			500ml Plastic (ALE2
		10080867	SW205			H2SO4 (ALE244)
		10080868	SW206			500ml Plastic (ALE2
		10080869	SW207			H2SO4 (ALE244)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 12				X X X X X X X X X X X X
Anions by Kone (w)	All	NDPs: 0 Tests: 12				X X X X X X X X X X X X
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 12				X X X X X X X X X X X X
pH Value	All	NDPs: 0 Tests: 6				X X X X X X
Suspended Solids	All	NDPs: 0 Tests: 6				X X X X X X

CERTIFICATE OF ANALYSIS

SDG:	140930-4	**Location:**	Phase 2-3	**Order Number:**	7398L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	286828
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Depth (m)	Sample Type	Date Sampled	Sample Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			Cell 5	.	Water(GW/SW)	25/09/2014	.	29/09/2014	140930-4	10080873	
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	485 #								
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120	7.02 #								
Chloride	<2 mg/l	TM184	906 #								
			Cell 6	.	Water(GW/SW)	25/09/2014	.	29/09/2014	140930-4	10080875	
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	488 #								
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120	7.14 #								
Chloride	<2 mg/l	TM184	945 #								
			Cell 7	.	Water(GW/SW)	25/09/2014	.	29/09/2014	140930-4	10080877	
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	1210 #								
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120	15.5 #								
Chloride	<2 mg/l	TM184	2300 #								
			Cell 1/2	.	Water(GW/SW)	25/09/2014	.	29/09/2014	140930-4	10080871	
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	1790 #								
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120	21.9 #								
Chloride	<2 mg/l	TM184	3400 #								
			Cell 3/4	.	Water(GW/SW)	25/09/2014	.	29/09/2014	140930-4	10080872	
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	1220 #								
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120	16.3 #								
Chloride	<2 mg/l	TM184	2470 #								
			Holding Lagoon	.	Water(GW/SW)	25/09/2014	.	29/09/2014	140930-4	10080870	
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	1760 #								
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120	21.9 #								
Chloride	<2 mg/l	TM184	3270 #								

CERTIFICATE OF ANALYSIS

SDG:	140930-4	**Location:**	Phase 2-3	**Order Number:**	7398L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	286828
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW201	SW202	SW204	SW205	SW206	SW207
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	23/09/2014	23/09/2014	23/09/2014	23/09/2014	23/09/2014	23/09/2014
			Sample Time	.	.	.	.	.	.
			Date Received	29/09/2014	29/09/2014	29/09/2014	29/09/2014	29/09/2014	29/09/2014
			SDG Ref	140930-4	140930-4	140930-4	140930-4	140930-4	140930-4
			Lab Sample No.(s)	10080863	10080865	10080866	10080867	10080868	10080869
			AGS Reference						
Suspended solids, Total	<2 mg/l	TM022		<4 #	10 #	5.98 #	7.37 #	<4 #	8.42 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.281 #	15.9 #	0.305 #	0.232 #	0.205 #	0.234 #
Chloride	<2 mg/l	TM184		15.4 #	21.8 #	20 #	21.1 #	23.7 #	21.8 #
pH	<1 pH Units	TM256		7.15 #	1.51 #	7.9 #	7.72 #	7.45 #	7.85 #

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Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	286828
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Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM022	Method 2540D, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part120 1981;BS EN 872	Determination of total suspended solids in waters		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM120	Method 2510B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part 9:1970	Determination of Electrical Conductivity using a Conductivity Meter		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	140930-4	**Location:**	Phase 2-3	**Order Number:**	7398L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	286828
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	10080873	10080875	10080877	10080871	10080872	10080870	10080863	10080865	10080866	10080867
Customer Sample Ref.	Cell 5	Cell 6	Cell 7	Cell 1/2	Cell 3/4	Holding Lagoon	SW201	SW202	SW204	SW205
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	07-Oct-2014	07-Oct-2014	07-Oct-2014	07-Oct-2014	07-Oct-2014	07-Oct-2014	01-Oct-2014	02-Oct-2014	02-Oct-2014	01-Oct-2014
Anions by Kone (w)	03-Oct-2014	03-Oct-2014	03-Oct-2014	03-Oct-2014	03-Oct-2014	02-Oct-2014	03-Oct-2014	03-Oct-2014	02-Oct-2014	02-Oct-2014
Conductivity (at 20 deg.C)	02-Oct-2014	02-Oct-2014	02-Oct-2014	02-Oct-2014	02-Oct-2014	02-Oct-2014	02-Oct-2014	02-Oct-2014	02-Oct-2014	02-Oct-2014
pH Value							06-Oct-2014	06-Oct-2014	06-Oct-2014	06-Oct-2014
Suspended Solids							07-Oct-2014	06-Oct-2014	06-Oct-2014	06-Oct-2014

Lab Sample No(s)	10080868	10080869
Customer Sample Ref.	SW206	SW207
AGS Ref.		
Depth		
Type	LIQUID	LIQUID
Ammoniacal Nitrogen	02-Oct-2014	02-Oct-2014
Anions by Kone (w)	03-Oct-2014	03-Oct-2014
Conductivity (at 20 deg.C)	02-Oct-2014	02-Oct-2014
pH Value	06-Oct-2014	06-Oct-2014
Suspended Solids	07-Oct-2014	06-Oct-2014

SDG:	140930-4	**Location:**	Phase 2-3	**Order Number:**	7398L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	286828
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Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH_4 by the BRE method, VOC TICS and SVOC TICS.

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3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

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21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

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Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

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Carmarthenshire
SA32 8BG

Attention: Mike Lewis

CERTIFICATE OF ANALYSIS

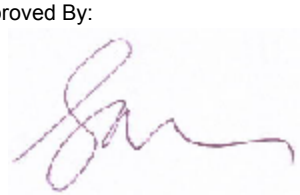
Date:	27 February 2015
Customer:	H_CWMENV_NAN
Sample Delivery Group (SDG):	141113-112
Your Reference:	
Location:	Phase 2-3
Report No:	303726

We received 25 samples on Thursday November 13, 2014 and 25 of these samples were scheduled for analysis which was completed on Friday November 21, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:



Sonia McWhan

Operations Manager

ilac-MRA UKAS TESTING 1291

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Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No.

CERTIFICATE OF ANALYSIS

SDG:	141113-112	**Location:**	Phase 2-3	**Order Number:**	7736 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303726
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
10373870	BH3/4			11/11/2014
10373867	BH208			11/11/2014
10373868	BH 5/02			11/11/2014
10373879	CELL SUMP 5			11/11/2014
10373880	CELL SUMP 6			11/11/2014
10373881	CELL SUMP 7			11/11/2014
10373877	CELL SUMP 1/2			11/11/2014
10373878	CELL SUMP 3/4			11/11/2014
10373876	LEACHATE HOLDING LAGOON			11/11/2014
10373864	NACW203			11/11/2014
10373866	NACW205			11/11/2014
10373869	NACW212			11/11/2014
10373871	NACW227			11/11/2014
10373875	NACW228			11/11/2014
10373851	SW201			10/11/2014
10373852	SW202			10/11/2014
10373853	SW203			10/11/2014
10373854	SW204			10/11/2014
10373855	SW205			10/11/2014
10373857	SW206			10/11/2014
10373858	SW207			10/11/2014
10373859	UD1			10/11/2014
10373860	UD3			10/11/2014
10373862	UD4			10/11/2014
10373863	UD5			11/11/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	141113-112	**Location:**	Phase 2-3	**Order Number:**	7736 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303726
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

		Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 24				
Anions by Kone (w)	All	NDPs: 0 Tests: 25				
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 25				
pH Value	All	NDPs: 0 Tests: 7				
Suspended Solids	All	NDPs: 0 Tests: 7				

Lab Sample No(s)	Customer Sample Reference	Container	Ammoniacal Nitrogen	Anions by Kone (w)	Conductivity (at 20 deg.C)	pH Value	Suspended Solids
10373870	BH3/4	1plastic (ALE221)		X	X		
		H2SO4 (ALE244)	X				
10373867	BH208	1plastic (ALE221)		X	X		
		H2SO4 (ALE244)	X				
10373868	BH 5/02	1plastic (ALE221)		X	X		
		H2SO4 (ALE244)	X				
10373879	CELL SUMP 5	1plastic (ALE221)		X	X		
		H2SO4 (ALE244)	X				
10373880	CELL SUMP 6	1plastic (ALE221)		X	X		
		H2SO4 (ALE244)	X				
10373881	CELL SUMP 7	1plastic (ALE221)		X	X		
		H2SO4 (ALE244)	X				
10373877	CELL SUMP 1/2	1plastic (ALE221)		X	X		
		H2SO4 (ALE244)	X				
10373878	CELL SUMP 3/4	1plastic (ALE221)		X	X		
		H2SO4 (ALE244)	X				
10373876	LEACHATE HOLDING LAGOON	1plastic (ALE221)		X	X		
		H2SO4 (ALE244)	X				
10373864	NACW203	1plastic (ALE221)		X	X		
		H2SO4 (ALE244)	X				
10373866	NACW205	1plastic (ALE221)		X	X		
		H2SO4 (ALE244)	X				
10373869	NACW212	1plastic (ALE221)		X	X		
		H2SO4 (ALE244)	X				
10373871	NACW227	1plastic (ALE221)		X	X		
		H2SO4 (ALE244)	X				
10373875	NACW228	1plastic (ALE221)		X	X		
		H2SO4 (ALE244)	X				
10373851	SW201	1plastic (ALE221)		X	X	X	X
		H2SO4 (ALE244)	X				
10373852	SW202	1plastic (ALE221)		X	X	X	X
		H2SO4 (ALE244)	X				
10373853	SW203	1plastic (ALE221)		X	X	X	X
		H2SO4 (ALE244)	X				
10373854	SW204	1plastic (ALE221)		X	X	X	X
		H2SO4 (ALE244)	X				
10373855	SW205	1plastic (ALE221)		X	X	X	X
10373857	SW206	1plastic (ALE221)		X	X	X	X
		H2SO4 (ALE244)	X				
10373858	SW207	1plastic (ALE221)		X	X	X	X

CERTIFICATE OF ANALYSIS

SDG:	141113-112	**Location:**	Phase 2-3	**Order Number:**	7736 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303726
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			10373858	SW207			H2SO4 (ALE244)
			10373859	UD1			1plastic (ALE221)
			10373860	UD3			H2SO4 (ALE244)
			10373862	UD4			1plastic (ALE221)
			10373863	UD5			H2SO4 (ALE244)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 24	X	X	X	X	X
Anions by Kone (w)	All	NDPs: 0 Tests: 25	X	X	X	X	X
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 25	X	X	X	X	X

CERTIFICATE OF ANALYSIS

SDG:	141113-112	**Location:**	Phase 2-3	**Order Number:**	7736 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303726
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/4	BH208	BH 5/02	CELL SUMP 5	CELL SUMP 6	CELL SUMP 7
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	11/11/2014	11/11/2014	11/11/2014	11/11/2014	11/11/2014	11/11/2014
			Sample Time	.	.	.	.	.	.
			Date Received	13/11/2014	13/11/2014	13/11/2014	13/11/2014	13/11/2014	13/11/2014
			SDG Ref	141113-112	141113-112	141113-112	141113-112	141113-112	141113-112
			Lab Sample No.(s)	10373870	10373867	10373868	10373879	10373880	10373881
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	<0.2 #	0.291 #	728 #	715 #	723 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.32 #	0.441 #	0.439 #	10.5 #	10.5 #	10.4 #
Chloride	<2 mg/l	TM184		15 #	14.6 #	18.9 #	1430 #	1440 #	1440 #

CERTIFICATE OF ANALYSIS

SDG:	141113-112	**Location:**	Phase 2-3	**Order Number:**	7736 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303726
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	CELL SUMP 1/2	CELL SUMP 3/4	LEACHATE HOLDING LAGOON	NACW203	NACW205	NACW212
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	11/11/2014	11/11/2014	11/11/2014	11/11/2014	11/11/2014	11/11/2014
			Sample Time	.	.	.	.	.	.
			Date Received	13/11/2014	13/11/2014	13/11/2014	13/11/2014	13/11/2014	13/11/2014
			SDG Ref	141113-112	141113-112	141113-112	141113-112	141113-112	141113-112
			Lab Sample No.(s)	10373877	10373878	10373876	10373864	10373866	10373869
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		1000 #	996 #	997 #	0.852 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		16.7 #	13.4 #	16.6 #	0.468 #	0.472 #	0.366 #
Chloride	<2 mg/l	TM184		3810 #	3010 #	3850 #	22.2 #	22.6 #	18 #

CERTIFICATE OF ANALYSIS

SDG:	141113-112	**Location:**	Phase 2-3	**Order Number:**	7736 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303726
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Depth (m)	Sample Type	Date Sampled	Sample Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			NACW227	.	Water(GW/SW)	11/11/2014	.	13/11/2014	141113-112	10373871	
			NACW228	.	Water(GW/SW)	11/11/2014	.	13/11/2014	141113-112	10373875	
			SW201	.	Water(GW/SW)	10/11/2014	.	13/11/2014	141113-112	10373851	
			SW202	.	Water(GW/SW)	10/11/2014	.	13/11/2014	141113-112	10373852	
			SW203	.	Water(GW/SW)	10/11/2014	.	13/11/2014	141113-112	10373853	
			SW204	.	Water(GW/SW)	10/11/2014	.	13/11/2014	141113-112	10373854	
Suspended solids, Total	<2 mg/l	TM022									
											#
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	<0.2								
			#								#
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120	0.321								
			#								#
Chloride	<2 mg/l	TM184	15								
			#								#
pH	<1 pH Units	TM256									
											#

CERTIFICATE OF ANALYSIS

SDG:	141113-112	**Location:**	Phase 2-3	**Order Number:**	7736 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303726
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Depth (m)	Sample Type	Date Sampled	Sample Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
Suspended solids, Total	<2 mg/l	TM022	SW205	.	Water(GW/SW)	10/11/2014	.	13/11/2014	141113-112	10373855	46 #
			SW206	.	Water(GW/SW)	10/11/2014	.	13/11/2014	141113-112	10373857	<2 #
			SW207	.	Water(GW/SW)	10/11/2014	.	13/11/2014	141113-112	10373858	23.5 #
			UD1	.	Water(GW/SW)	10/11/2014	.	13/11/2014	141113-112	10373859	
			UD3	.	Water(GW/SW)	10/11/2014	.	13/11/2014	141113-112	10373860	
			UD4	.	Water(GW/SW)	10/11/2014	.	13/11/2014	141113-112	10373862	
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	SW205								
			SW206								<0.2 #
			SW207								0.812 #
			UD1								<0.2 #
			UD3								<0.2 #
			UD4								2.99 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120	SW205								0.589 #
			SW206								0.13 #
			SW207								0.587 #
			UD1								0.368 #
			UD3								0.414 #
			UD4								0.728 #
Chloride	<2 mg/l	TM184	SW205								40.1 #
			SW206								12.3 #
			SW207								41.9 #
			UD1								16.5 #
			UD3								17.4 #
			UD4								45.6 #
pH	<1 pH Units	TM256	SW205								7.8 #
			SW206								7.57 #
			SW207								8.02 #
			UD1								
			UD3								
			UD4								

CERTIFICATE OF ANALYSIS

SDG:	141113-112	**Location:**	Phase 2-3	**Order Number:**	7736 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303726
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Customer Sample R	UD5
Depth (m)	.
Sample Type	Water(GW/SW)
Date Sampled	11/11/2014
Sample Time	.
Date Received	13/11/2014
SDG Ref	141113-112
Lab Sample No.(s)	10373863
AGS Reference	

Component	LOD/Units	Method	
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	0.672 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120	0.357 #
Chloride	<2 mg/l	TM184	29.1 #

CERTIFICATE OF ANALYSIS

SDG:	141113-112	**Location:**	Phase 2-3	**Order Number:**	7736 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303726
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM022	Method 2540D, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part120 1981;BS EN 872	Determination of total suspended solids in waters		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM120	Method 2510B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part 9:1970	Determination of Electrical Conductivity using a Conductivity Meter		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	141113-112	**Location:**	Phase 2-3	**Order Number:**	7736 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303726
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	10373867	10373868	10373870	10373879	10373880	10373881	10373877	10373878	10373876	10373864
Customer Sample Ref.	BH208	BH 5/02	BH3/4	CELL SUMP 5	CELL SUMP 6	CELL SUMP 7	CELL SUMP 1/2	CELL SUMP 3/4	LEACHATE HOLDING LAGOON	NACW203
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	19-Nov-2014	19-Nov-2014	19-Nov-2014	19-Nov-2014	19-Nov-2014	19-Nov-2014	19-Nov-2014	19-Nov-2014	19-Nov-2014	19-Nov-2014
Anions by Kone (w)	17-Nov-2014	17-Nov-2014	17-Nov-2014	17-Nov-2014	17-Nov-2014	17-Nov-2014	17-Nov-2014	17-Nov-2014	17-Nov-2014	17-Nov-2014
Conductivity (at 20 deg.C)	18-Nov-2014	18-Nov-2014	18-Nov-2014	18-Nov-2014	18-Nov-2014	18-Nov-2014	18-Nov-2014	18-Nov-2014	18-Nov-2014	18-Nov-2014

Lab Sample No(s)	10373866	10373869	10373871	10373875	10373851	10373852	10373853	10373854	10373855	10373857
Customer Sample Ref.	NACW205	NACW212	NACW227	NACW228	SW201	SW202	SW203	SW204	SW205	SW206
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	19-Nov-2014	19-Nov-2014	19-Nov-2014	19-Nov-2014	19-Nov-2014	19-Nov-2014	19-Nov-2014	19-Nov-2014	19-Nov-2014	19-Nov-2014
Anions by Kone (w)	17-Nov-2014	17-Nov-2014	17-Nov-2014	17-Nov-2014	17-Nov-2014	17-Nov-2014	17-Nov-2014	17-Nov-2014	17-Nov-2014	17-Nov-2014
Conductivity (at 20 deg.C)	18-Nov-2014	18-Nov-2014	17-Nov-2014	18-Nov-2014	18-Nov-2014	18-Nov-2014	18-Nov-2014	18-Nov-2014	18-Nov-2014	18-Nov-2014
pH Value					19-Nov-2014	19-Nov-2014	19-Nov-2014	19-Nov-2014	19-Nov-2014	19-Nov-2014
Suspended Solids					18-Nov-2014	21-Nov-2014	17-Nov-2014	17-Nov-2014	17-Nov-2014	17-Nov-2014

Lab Sample No(s)	10373858	10373859	10373860	10373862	10373863
Customer Sample Ref.	SW207	UD1	UD3	UD4	UD5
AGS Ref.					
Depth					
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	19-Nov-2014	19-Nov-2014	21-Nov-2014	19-Nov-2014	19-Nov-2014
Anions by Kone (w)	17-Nov-2014	17-Nov-2014	17-Nov-2014	17-Nov-2014	17-Nov-2014
Conductivity (at 20 deg.C)	18-Nov-2014	18-Nov-2014	18-Nov-2014	17-Nov-2014	18-Nov-2014
pH Value	19-Nov-2014				
Suspended Solids	20-Nov-2014				

SDG:	141113-112	**Location:**	Phase 2-3	**Order Number:**	7736 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	303726
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH_4 by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before presevation was performed
§	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

ALcontrol Laboratories

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email: mkt@alcontrol.com
Website: www.alcontrol.com

CWM Environmental Ltd
Nantyclaws Landfill Site
Llanddarg Road
Carmarthen
Carmarthenshire
SA32 8BG

Attention: Mike Lewis

CERTIFICATE OF ANALYSIS

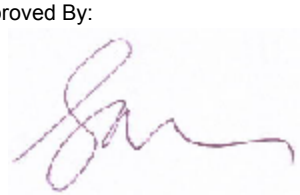
Date:	03 December 2014
Customer:	H_CWMENV_NAN
Sample Delivery Group (SDG):	141127-111
Your Reference:	
Location:	Phase 2-3
Report No:	294211

We received 1 sample on Thursday November 27, 2014 and 1 of these samples were scheduled for analysis which was completed on Tuesday December 02, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:



Sonia McWhan

Operations Manager

Alcontrol Laboratories is a trading division of ALcontrol UK Limited
Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No.

CERTIFICATE OF ANALYSIS

SDG:	141127-111	**Location:**	Phase 2-3	**Order Number:**	7744LAN
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294211
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
10459047	SW 205			26/11/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	141127-111	**Location:**	Phase 2-3	**Order Number:**	7744LAN
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294211
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)			10459047
Customer Sample Reference			SW 205
AGS Reference			
Depth (m)			
Container			H2SO4 (ALE244)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 1	X

CERTIFICATE OF ANALYSIS

SDG:	141127-111	**Location:**	Phase 2-3	**Order Number:**	7744LAN
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294211
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

		Customer Sample R	SW 205
		Depth (m)	.
		Sample Type	Water(GW/SW)
		Date Sampled	26/11/2014
		Sample Time	.
		Date Received	27/11/2014
		SDG Ref	141127-111
		Lab Sample No.(s)	10459047
		AGS Reference	
Component	**LOD/Units**	**Method**	
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	0.306 #

CERTIFICATE OF ANALYSIS

SDG:	141127-111	**Location:**	Phase 2-3	**Order Number:**	7744LAN
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294211
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	141127-111	**Location:**	Phase 2-3	**Order Number:**	7744LAN
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294211
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	10459047
Customer Sample Ref.	SW 205
AGS Ref.	
Depth	
Type	LIQUID
Ammoniacal Nitrogen	02-Dec-2014

SDG:	141127-111	**Location:**	Phase 2-3	**Order Number:**	7744LAN
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294211
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH_4 by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Holding time exceeded before sample received**
5	**Samples exceeded holding time before presevation was performed**
§	**Sampled on date not provided**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to sampled on date**
&	**Sample Holding Time exceeded - Late arrival of instructions.**

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

ALcontrol Laboratories

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CWM Environmental Ltd
Nantyclaws Landfill Site
Llanddarg Road
Carmarthen
Carmarthenshire
SA32 8BG

Attention: Mike Lewis

CERTIFICATE OF ANALYSIS

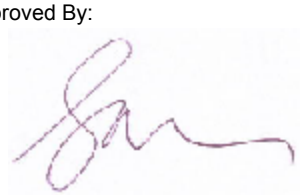
Date:	23 December 2014
Customer:	H_CWMENV_NAN
Sample Delivery Group (SDG):	141212-108
Your Reference:	
Location:	Phase 2-3
Report No:	296935

We received 24 samples on Friday December 12, 2014 and 24 of these samples were scheduled for analysis which was completed on Tuesday December 23, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:



Sonia McWhan

Operations Manager

ilac-MRA UKAS TESTING 1291

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Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No.

CERTIFICATE OF ANALYSIS

SDG:	141212-108	**Location:**	Phase 2-3	**Order Number:**	
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	296935
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
10557390	BH3/4			09/12/2014
10557389	BH5/2			09/12/2014
10557388	BH208			09/12/2014
10557409	CELL SUMP 5			10/12/2014
10557410	CELL SUMP 6			10/12/2014
10557411	CELL SUMP 7			10/12/2014
10557407	CELL SUMP 1/2			10/12/2014
10557408	CELL SUMP 3/4			10/12/2014
10557406	LEACHATE HOLDING LAGOON			10/12/2014
10557392	NACW2/2			09/12/2014
10557385	NACW203			09/12/2014
10557387	NACW205			09/12/2014
10557391	NACW228			09/12/2014
10557393	SW201			10/12/2014
10557394	SW202			10/12/2014
10557396	SW203			10/12/2014
10557398	SW204			10/12/2014
10557399	SW205			10/12/2014
10557400	SW206			10/12/2014
10557401	SW207			10/12/2014
10557402	UD1			10/12/2014
10557403	UD3			10/12/2014
10557404	UD4			10/12/2014
10557405	UD5			10/12/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	141212-108	**Location:**	Phase 2-3	**Order Number:**	
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	296935
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			10557390	BH3/4			500ml Plastic (ALE2
			10557389	BH5/2			H2SO4 (ALE244)
			10557388	BH208			500ml Plastic (ALE2
			10557409	CELL SUMP 5			H2SO4 (ALE244)
			10557410	CELL SUMP 6			500ml Plastic (ALE2
			10557411	CELL SUMP 7			H2SO4 (ALE244)
			10557407	CELL SUMP 1/2			500ml Plastic (ALE2
			10557408	CELL SUMP 3/4			H2SO4 (ALE244)
			10557406	LEACHATE HOLDING LAGOON			500ml Plastic (ALE2
			10557392	NACW2/2			H2SO4 (ALE244)
			10557385	NACW203			500ml Plastic (ALE2
			10557387	NACW205			H2SO4 (ALE244)
			10557391	NACW228			500ml Plastic (ALE2
			10557393	SW201			H2SO4 (ALE244)
			10557394	SW202			500ml Plastic (ALE2
			10557396	SW203			H2SO4 (ALE244)
			10557398	SW204			500ml Plastic (ALE2
			10557399	SW205			H2SO4 (ALE244)
			10557400	SW206			500ml Plastic (ALE2
			10557401	SW207			H2SO4 (ALE244)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 24		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Anions by Kone (w)	All	NDPs: 0 Tests: 24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
pH Value	All	NDPs: 0 Tests: 7																		X	X	X	X	X	X	X	X	X	X	X	X	X
Suspended Solids	All	NDPs: 0 Tests: 7																		X	X	X	X	X	X	X	X	X	X	X	X	X

CERTIFICATE OF ANALYSIS

SDG:	141212-108	**Location:**	Phase 2-3	**Order Number:**	
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	296935
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			10557402	UD1			500ml Plastic (ALE2
							H2SO4 (ALE244)
			10557403	UD3			500ml Plastic (ALE2
							H2SO4 (ALE244)
			10557404	UD4			500ml Plastic (ALE2
							H2SO4 (ALE244)
			10557405	UD5			500ml Plastic (ALE2
							H2SO4 (ALE244)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 24					
				X		X	X
Anions by Kone (w)	All	NDPs: 0 Tests: 24					
			X	X		X	X
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 24					
			X	X		X	X

CERTIFICATE OF ANALYSIS

SDG:	141212-108	**Location:**	Phase 2-3	**Order Number:**	
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	296935
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/4	BH5/2	BH208	CELL SUMP 5	CELL SUMP 6	CELL SUMP 7
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	09/12/2014	09/12/2014	09/12/2014	10/12/2014	10/12/2014	10/12/2014
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2014	12/12/2014	12/12/2014	12/12/2014	12/12/2014	12/12/2014
			SDG Ref	141212-108	141212-108	141212-108	141212-108	141212-108	141212-108
			Lab Sample No.(s)	10557390	10557389	10557388	10557409	10557410	10557411
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		0.222 #	<0.2 #	<0.2 #	484 #	683 #	346 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.465 #	0.437 #	0.428 #	7.23 #	6 #	10.4 #
Chloride	<2 mg/l	TM184		22.4 #	19.4 #	15.1 #	1190 #	997 #	1840 #

CERTIFICATE OF ANALYSIS

SDG:	141212-108	**Location:**	Phase 2-3	**Order Number:**	
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	296935
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	CELL SUMP 1/2	CELL SUMP 3/4	LEACHATE HOLDING LAGOON	NACW2/2	NACW203	NACW205
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/12/2014	10/12/2014	10/12/2014	09/12/2014	09/12/2014	09/12/2014
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2014	12/12/2014	12/12/2014	12/12/2014	12/12/2014	12/12/2014
			SDG Ref	141212-108	141212-108	141212-108	141212-108	141212-108	141212-108
			Lab Sample No.(s)	10557407	10557408	10557406	10557392	10557385	10557387
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		1120 #	561 #	1140 #	<0.2 #	<0.2 #	<0.2 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		13.2 #	9.11 #	15.2 #	0.361 #	0.473 #	0.475 #
Chloride	<2 mg/l	TM184		2310 #	1500 #	2850 #	25.7 #	23.7 #	23.1 #

CERTIFICATE OF ANALYSIS

SDG:	141212-108	**Location:**	Phase 2-3	**Order Number:**	
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	296935
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Depth (m)	Sample Type	Date Sampled	Sample Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			NACW228	.	Water(GW/SW)	09/12/2014	.	12/12/2014	141212-108	10557391	
			SW201	.	Water(GW/SW)	10/12/2014	.	12/12/2014	141212-108	10557393	
			SW202	.	Water(GW/SW)	10/12/2014	.	12/12/2014	141212-108	10557394	
			SW203	.	Water(GW/SW)	10/12/2014	.	12/12/2014	141212-108	10557396	
			SW204	.	Water(GW/SW)	10/12/2014	.	12/12/2014	141212-108	10557398	
			SW205	.	Water(GW/SW)	10/12/2014	.	12/12/2014	141212-108	10557399	
Suspended solids, Total	<2 mg/l	TM022		25.5 #	9.5 #	44.5 #	18 #	9 #			
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	0.218 #	0.238 #	0.278 #	0.332 #	0.214 #	0.399 #			
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120	0.448 #	0.322 #	0.456 #	0.457 #	0.293 #	0.346 #			
Chloride	<2 mg/l	TM184	22.5 #	30.1 #	37.2 #	36.7 #	25.4 #	29.2 #			
pH	<1 pH Units	TM256		7.9 #	7.9 #	7.68 #	8 #	7.82 #			

CERTIFICATE OF ANALYSIS

SDG:	141212-108	**Location:**	Phase 2-3	**Order Number:**	
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	296935
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW206	SW207	UD1	UD3	UD4	UD5
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	10/12/2014	10/12/2014	10/12/2014	10/12/2014	10/12/2014	10/12/2014
			Sample Time	.	.	.	.	.	.
			Date Received	12/12/2014	12/12/2014	12/12/2014	12/12/2014	12/12/2014	12/12/2014
			SDG Ref	141212-108	141212-108	141212-108	141212-108	141212-108	141212-108
			Lab Sample No.(s)	10557400	10557401	10557402	10557403	10557404	10557405
			AGS Reference						
Suspended solids, Total	<2 mg/l	TM022		<2 #	36.5 #				
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	0.201 #	0.52 #	0.534 #	<0.2 #	0.368 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.137 #	0.4 #	0.43 #	0.372 #	0.318 #	0.315 #
Chloride	<2 mg/l	TM184		12.4 #	36.3 #	26.4 #	28.2 #	15.8 #	16 #
pH	<1 pH Units	TM256		7.62 #	7.94 #				

CERTIFICATE OF ANALYSIS

SDG:	141212-108	**Location:**	Phase 2-3	**Order Number:**	
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	296935
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM022	Method 2540D, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part120 1981;BS EN 872	Determination of total suspended solids in waters		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM120	Method 2510B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part 9:1970	Determination of Electrical Conductivity using a Conductivity Meter		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	141212-108	**Location:**	Phase 2-3	**Order Number:**	
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	296935
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	10557388	10557390	10557389	10557409	10557410	10557411	10557407	10557408	10557406	10557392
Customer Sample Ref.	BH208	BH3/4	BH5/2	CELL SUMP 5	CELL SUMP 6	CELL SUMP 7	CELL SUMP 1/2	CELL SUMP 3/4	LEACHATE HOLDING LAGOON	NACW2/2
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	22-Dec-2014	22-Dec-2014	22-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	17-Dec-2014	22-Dec-2014
Anions by Kone (w)	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	17-Dec-2014
Conductivity (at 20 deg.C)	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014

Lab Sample No(s)	10557385	10557387	10557391	10557393	10557394	10557396	10557398	10557399	10557400	10557401
Customer Sample Ref.	NACW203	NACW205	NACW228	SW201	SW202	SW203	SW204	SW205	SW206	SW207
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	22-Dec-2014	22-Dec-2014	22-Dec-2014	22-Dec-2014	22-Dec-2014	22-Dec-2014	22-Dec-2014	22-Dec-2014	22-Dec-2014	23-Dec-2014
Anions by Kone (w)	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	17-Dec-2014	19-Dec-2014	19-Dec-2014	17-Dec-2014	17-Dec-2014
Conductivity (at 20 deg.C)	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014
pH Value				18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014	18-Dec-2014
Suspended Solids				23-Dec-2014	23-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014

Lab Sample No(s)	10557402	10557403	10557404	10557405
Customer Sample Ref.	UD1	UD3	UD4	UD5
AGS Ref.				
Depth				
Type	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	22-Dec-2014	22-Dec-2014	23-Dec-2014	23-Dec-2014
Anions by Kone (w)	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014
Conductivity (at 20 deg.C)	19-Dec-2014	19-Dec-2014	19-Dec-2014	19-Dec-2014

SDG:	141212-108	**Location:**	Phase 2-3	**Order Number:**	
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	296935
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH_4 by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Holding time exceeded before sample received**
5	**Samples exceeded holding time before presevation was performed**
§	**Sampled on date not provided**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to sampled on date**
&	**Sample Holding Time exceeded - Late arrival of instructions.**

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

APPENDIX B

NOTE ON ANNUAL MONITORING SUITES AND PROPOSED ‘LIST 1 SCREEN’

NANTYCAWS LANDFILL SITE
NOTE ON ANNUAL MONITORING SUITES AND PROPOSED 'LIST 1 SCREEN'

Introduction

The following note has been prepared by Parsons Brinckerhoff (PB) on behalf of CWM Environmental (CWM). It proposes which parameters should be included within the 'List 1 screen' required to be undertaken at the monitoring locations at Nantycaws Landfill Site (the site) on an annual frequency. The recommendations made are based on review of the results of previous List 1 screens, undertaken annually between 2010 and 2013.

List I Screen

The existing Environmental Permit for the site (Ref CP3735PB v.004, 23 September 2009) states that a 'List I screen' is to be undertaken on an annual basis at all leachate, groundwater and surface water monitoring locations included within the permit. It further states that the analysis to be included within the List I screen is to be defined through liaison with the Environment Agency.

In 2013 the following parameter groupings were included within the List I screen as detailed below. These are based on the suites analysed by ALcontrol, the existing certified laboratory:

Leachate and Underdrainage

- Metals (including cadmium);
- Petroleum hydrocarbons, comprising:
    - speciated total petroleum hydrocarbons (TPH); and
    - benzene, ethlylbenzene, toluene and xylenes (BTEX);
- Semi-volatile organic compounds (SVOCs), including 4-methylphenol and speciated polycyclic aromatic hydrocarbons (PAH);
- Phenylurea herbicides;
- Phenoxyacid herbicides;
- Polychlorinated biphenyls (PCBs);
- Phenols (including 4-methylphenol);
- Volatile organic hydrocarbons (VOCs), including BTEX;
- Cyanides; and
- Organochlorine pesticides (OCPS).

Groundwater

- Metals (including cadmium);
- Petroleum hydrocarbons, comprising:
    - speciated total petroleum hydrocarbons (TPH); and
    - benzene, ethlylbenzene, toluene and xylenes (BTEX);
- Speciated polycyclic aromatic hydrocarbons (PAH);
- Phenoxyacid herbicides;
- Phenols (including 4-methylphenol);
- Volatile organic hydrocarbons (VOCs), including BTEX.

Surface water

- Metals (including cadmium);
- Benzene, ethlylbenzene, toluene and xylenes (BTEX);
- Speciated polycyclic aromatic hydrocarbons (PAH);
- Phenoxyacid herbicides;
- Phenols (including 4-methylphenol);
- Volatile organic hydrocarbons (VOCs), including BTEX.

The individual parameters included within each of these groupings are included within Table D.1, attached to this note. This shows where each of these parameters was detected during the analysis undertaken in 2013.

Proposed List I Screen

The following analytical suites are proposed for inclusion in the List I screens going forward, based on review of the analytical results undertaken between 2010 and 2013, as indicated in the right hand columns on Table D1.

1. ***Leachates***

   As the source term it is proposed to continue to analyse for all of the above parameters.

2. ***Underdrainage***

   As the most sensitive receptor locations, being immediately down-gradient of the landfill and up-gradient of the surface waters, it is proposed to analyse for an identical list of parameters as for the leachate, outlined in (1) above.

3. ***Groundwater***

   The following changes are proposed to the groundwater analysis:

   - At locations where free phase LNAPL is not detected, to use banded TPH as a screen in groundwater and not to analyse for speciated TPH (see comment on VOCs below);
   - To exclude VOCs but to undertake BTEX, provided that the banded TPH screen detects hydrocarbon parameters. Where the banded TPH screen is less than the laboratory detection limit of 0.01 mg/l, no analysis for BTEX will be undertaken.

   * Should detections of any of the excluded suites in groundwater be recorded in any of the underdrainage samples, confirmatory analysis will be undertaken.

4. ***Surface Water***

   It is proposed that surface waters should be analysed for the s***a***me list of parameters as for the groundwater, outlined in (3) above. As with the groundwaters, excluded parameter suites would only be analysed for should there be detections of these within the site underdrainage.

Sub-Suite	Test	Method	Unit	MDL	CELL SUMP 1/2	CELL SUMP 3/4	CELL SUMP 5	CELL SUMP 6	CELL SUMP 7	Leachate	Under-drainage	Ground water	Comment / Justification
					12/11/2013	12/11/2013	12/11/2013	12/11/2013	12/11/2013				
Cyanides	Cyanide, Free	TM227	mg/l	0.05	0.05	0.05	0.05	0.05	0.05	Y	Y	N	Occasionally detected in source but not detected in underdrainage, groundwater or surface water since 2009.
	Cyanide, Total	TM227	mg/l	0.05	0.05	0.05	0.05	**0.082**	0.05				
Physiochemical Parameters	Alkalinity, Bicarbonate as CaCO3 (diss.filt)	TM043	mg/l	2	**4920**	**4040**	**5280**	**7300**	**5420**	Y	Y	Y	Most physiochemical parameters to be kept with the exception of TOC and COD
	Alkalinity, Total as CaCO3	TM043	mg/l	2	**5060**	**4180**	**5400**	**7440**	**5580**				
	Alkalinity,Total as CaCO3 (diss.filt)	TM043	mg/l	2	**4920**	**4040**	**5280**	**7300**	**5420**				
	Ammoniacal Nitrogen as N	TM099	mg/l	0.2	**968**	**908**	**1410**	**1540**	**928**				
	BOD, unfiltered	TM045	mg/l	1	**584**	**107**	**106**	**301**	**1070**				
	COD, unfiltered	TM107	mg/l	7	**2490**	**1670**	**1790**	**2890**	**3040**				
	Conductivity @ 20 deg.C	TM120	mg/l	0.005	**14.3**	**11.4**	**20.9**	**16.2**	**12.7**				
	Ionic balance	Calulation	mg/l	0	-0.759	-0.485	-1.56	**0.0715**	**1.77**				
	Organic Carbon, Total	TM090	mg/l	3	**863**	**863**	**522**	**1030**	**51.7**				
	pH	TM256	mg/l	1	**7.78**	**7.75**	**7.72**	**7.79**	**7.7**				
	Suspended solids, Total	TM022	mg/l	2	**138**	**338**	**55**	**31.7**	**98**				
Major Ions / Nutrients	Chloride	TM184	mg/l	2	**2560**	**1450**	**4800**	**1890**	**1600**	Y	Y	Y	Major ions to be kept as per current annual suite
	Nitrate as NO3	TM184	mg/l	0.3	0.3	0.3	0.3	0.3	0.3				
	Nitrite as NO2	TM184	mg/l	0.05	**8.59**	0.05	0.05	0.05	0.05				
	Sulphate	TM184	mg/l	2	2	**584**	**609**	**195**	2				
	Total Oxidised Nitrogen as N	TM184	mg/l	0.1	0.1	0.1	0.1	0.1	0.1				
Metals	Cadmium (diss.filt)	TM152	mg/l	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	Y	Y	Y	All metals to be kept as per current annual suite
	Chromium (diss.filt)	TM152	mg/l	0.00022	**0.245**	**0.0869**	**0.122**	**0.346**	**0.304**				
	Copper (diss.filt)	TM152	mg/l	0.00085	0.00085	0.00085	0.00085	0.00085	0.00085				
	Lead (diss.filt)	TM152	mg/l	0.00002	**0.00168**	**0.000905**	**0.00282**	**0.00202**	**0.0019**				
	Manganese (diss.filt)	TM152	mg/l	0.00004	**0.872**	**1.89**	**0.927**	**0.386**	**1.01**				
	Mercury (diss.filt)	TM183	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Nickel (diss.filt)	TM152	mg/l	0.00015	**0.127**	**0.119**	**0.135**	**0.177**	**0.11**				
	Zinc (diss.filt)	TM152	mg/l	0.00041	**0.0295**	**0.0157**	**0.0326**	**0.0521**	**0.0365**				
Alkaline and Iron Metals	Calcium (diss.filt)	TM228	mg/l	0.012	**147**	**180**	**71.3**	**57.6**	**238**	Y	Y	Y	
	Iron (diss.filt)	TM228	mg/l	0.019	**0.361**	**15.4**	**5.29**	**3.52**	**0.323**				
	Magnesium (diss.filt)	TM228	mg/l	0.036	**63.6**	**39.5**	**57.6**	**45**	**83**				
	Potassium (diss.filt)	TM228	mg/l	1	**858**	**517**	**1460**	**648**	**747**				
	Sodium (diss.filt)	TM228	mg/l	0.076	**1480**	**975**	**2300**	**1620**	**1270**				
Organochloride Pesticides	Aldrin	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	Y	Y	N	Not detected in source, underdrainage or groundwater since February 2011. However some detections in source, underdrainage, groundwater and surface water in pre Feb 2011 dataset
	alpha-Hexachlorocyclohexane (HCH / Lindane)	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	beta-Hexachlorocyclohexane (HCH / Lindane)	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Chlorothalonil	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	cis-Chlordane	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Dieldrin	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Endosulphan I	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Endosulphan II	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Endosulphan sulphate	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Endrin	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Ethion	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	gamma-Hexachlorocyclohexane (HCH / Lindane)	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Heptachlor	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Heptachlor epoxide	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Hexachlorobenzene	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Isodrin	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	o,p-DDE	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	o,p-DDT	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	o,p-Methoxychlor	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	o,p-TDE (DDD)	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	p,p-DDE	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	p,p-DDT	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	p,p-Methoxychlor	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	p,p-TDE (DDD)	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Pendimethalin	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Permethrin I	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Permethrin II	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Quintozene (PCNB)	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Tecnazene	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Telodrin	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Trans-chlordane	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Triadimefon	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Triallate	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
	Trifluralin	TM231	mg/l	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001				
PCBs	PCB congener 101	TM197	mg/l	1.5E-05	0.000015	0.000015	0.000015	0.000015	0.000015	Y	Y	N	PCBs were detected in the leachate in 2011 and in 2013. PCBs are included in the revised HRA with PCB congener
	PCB congener 118	TM197	mg/l	1.5E-05	0.000015	0.000015	0.000015	0.000015	0.000015				
	PCB congener 138	TM197	mg/l	1.5E-05	0.000015	0.000015	0.000015	0.000015	0.000015				
	PCB congener 153	TM197	mg/l	1.5E-05	0.000015	0.000015	0.000015	0.000015	0.000015				
	PCB congener 180	TM197	mg/l	1.5E-05	0.000015	0.000015	0.000015	0.000015	0.000015				
	PCB congener 28	TM197	mg/l	1.5E-05	0.000015	**0.00004**	**0.00003**	0.000015	0.000015				
	PCB congener 52	TM197	mg/l	1.5E-05	0.000015	0.000015	**0.00002**	0.000015	0.000015				
	Sum of detected EC7 PCB's	TM197	mg/l	0.00011	0.000105	0.000105	0.000105	0.000105	0.000105				
Phenols	2,3,4,6-tetrachlorophenol	TM205	mg/l	0.0005	**0.0285**	**0.00471**	**0.00536**	**0.00253**	**0.00329**	Y	Y	Y	Including 4-methylphenol, a COC. Included as List I screen for all media
	2,3,5,6-tetrachlorophenol	TM205	mg/l	0.0005	**0.01**	**0.00413**	**0.0063**	**0.00435**	**0.00498**				
	2,4,5-trichlorophenol	TM205	mg/l	0.0005	**0.00887**	**0.00381**	0.0005	0.0005	0.0005				
	2,4,6-trichlorophenol	TM205	mg/l	0.0005	**0.00628**	0.0005	0.0005	0.0005	0.0005				
	2,4-dichlorophenol	TM205	mg/l	0.0005	**0.0046**	**0.00364**	**0.00327**	0.0005	0.0005				
	2,4-dimethylphenol	TM205	mg/l	0.0005	**0.00921**	**0.0114**	**0.0102**	**0.00435**	**0.00974**				
	2,4-dinitrophenol	TM205	mg/l	0.0025	**0.272**	0.0025	0.0025	0.0025	0.0025				
	2,6-dichlorophenol	TM205	mg/l	0.0005	**0.00323**	0.0005	0.0005	0.0005	0.0005				
	2-chlorophenol	TM205	mg/l	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005				
	2-methylphenol	TM205	mg/l	0.0005	**0.0345**	**0.0361**	**0.0189**	**0.0357**	**0.0319**				
	2-nitrophenol	TM205	mg/l	0.0005	**0.00333**	0.0005	0.0005	0.0005	0.0005				
	3-methylphenol	TM205	mg/l	0.0005	**0.117**	**0.016**	**0.0052**	**0.092**	**0.176**				
	4-chloro-3-methylphenol	TM205	mg/l	0.0005	**0.00671**	0.0005	**0.00283**	**0.00335**	**0.00361**				
	4-Chlorophenol	TM205	mg/l	0.0005	**0.00419**	**0.00274**	0.0005	0.0005	**0.00449**				
	4-methylphenol	TM205	mg/l	0.0005	**1.79**	**0.0544**	**0.0428**	**0.0605**	**3.87**				
	4-nitrophenol	TM205	mg/l	0.0005	0.0005	0.0005	0.0005	**0.00758**	0.0005				
	Dinoseb	TM205	mg/l	0.004	**0.121**	0.004	0.004	0.004	0.004				
	DNOC	TM205	mg/l	0.003	**0.262**	0.003	0.003	0.003	0.003				
	Pentachlorophenol	TM205	mg/l	0.002	**0.134**	**0.0251**	**0.0394**	**0.0269**	**0.0304**				
	Phenol	TM205	mg/l	0.0005	**0.477**	**0.0174**	**0.0211**	**0.206**	**0.358**				
Phenoxy Acid Herbicides	2-(2,4,5-Trichlorophenoxy) proprionic acid	TM186	mg/l	2.4E-05	0.000024	0.000024	0.000024	0.000024	0.000024				
	2,4,5-Trichlorophenol (2,4,5-T)	TM186	mg/l	2.9E-05	0.000029	0.000029	0.000029	0.000029	0.000029				

Sub-Suite	Test	Method	Unit	MDL	CELL SUMP 1/2	CELL SUMP 3/4	CELL SUMP 5	CELL SUMP 6	CELL SUMP 7	Leachate	Under-drainage	Ground water	Comment / Justification
					12/11/2013	12/11/2013	12/11/2013	12/11/2013	12/11/2013				
	2,4-Dichlorophenoxy acetic acid (2,4-D)	TM186	mg/l	2.6E-05	0.000026	0.000026	0.000026	0.000026	0.000026				
	2,4-Dichlorophenoxy propanoic acid (2,4-DP)	TM186	mg/l	1.5E-05	**0.00511**	**0.00115**	**0.00282**	**0.00513**	**0.00761**				
	2-methyl-4,6-Dinitrophenol	TM186	mg/l	4.1E-05	0.000041	0.000041	0.000041	0.000041	0.000041				
	2-methyl-4-Chlorophenoxyacetic acid (MCPA)	TM186	mg/l	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003				
	4-(2,4-Dichlorophenoxy) butyric acid (2,4-DB)	TM186	mg/l	2.2E-05	0.000022	0.000022	**0.000286**	0.000022	**0.000312**				
	4-(4-Chloro-o-tolyloxy) butyric acid (MCPB)	TM186	mg/l	2.9E-05	0.000029	0.000029	0.000029	0.000029	**0.000293**				
	4-Chlorophenoxyacetic acid (4-CPA)	TM186	mg/l	3.7E-05	0.000037	0.000037	0.000037	0.000037	0.000037				
	4-Phenoxybutyric acid	TM186	mg/l	1.9E-05	**0.000508**	**0.000278**	**0.00041**	**0.000572**	**0.00069**				
	Bentazone	TM186	mg/l	1.8E-05	0.000018	0.000018	0.000018	0.000018	0.000018	Y	Y	Y	Includes Mecoprop, a COC. Included as List I screen for all media
	Bromoxynil	TM186	mg/l	2.2E-05	0.000022	0.000022	0.000022	0.000022	0.000022				
	Dicamba	TM186	mg/l	3.3E-05	0.000033	0.000033	0.000033	0.000033	0.000033				
	Dinoseb	TM186	mg/l	2.7E-05	0.000027	0.000027	0.000027	0.000027	0.000027				
	Ioxynil	TM186	mg/l	1.7E-05	0.000017	0.000017	0.000017	0.000017	0.000017				
	Mecoprop (MCPP)	TM186	mg/l	2.5E-05	**0.0395**	**0.0231**	**0.041**	**0.0458**	**0.0394**				
	Pentachlorophenol	TM186	mg/l	3.2E-05	0.000032	0.000032	0.000032	0.000032	0.000032				
	Phenoxyacetic acid (PAA)	TM186	mg/l	3.1E-05	**0.00654**	**0.00115**	**0.00264**	**0.000718**	**0.00582**				
	Phenoxypropionic acid (PPA)	TM186	mg/l	2.3E-05	**0.00157**	**0.00069**	**0.0015**	**0.00284**	**0.002**				
	Triclopyr	TM186	mg/l	2.2E-05	0.000022	0.000022	0.000022	0.000022	**0.000486**				
Phenylurea Herbicides	Atrazine (aq)	TM185	mg/l	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007				
	Carbetamide (aq)	TM185	mg/l	0.00004	0.00004	0.00004	0.00004	0.00004	0.00004				
	Chloridazon (aq)	TM185	mg/l	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003				
	Chlorpropham (aq)	TM185	mg/l	0.00009	0.00009	0.00009	0.00009	0.00009	0.00009				
	Chlortoluron (aq)	TM185	mg/l	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003				
	Diuron (aq)	TM185	mg/l	0.00003	**0.000707**	0.00003	0.00003	0.00003	**0.00163**				
	Isoproturon (aq)	TM185	mg/l	0.00004	**0.000653**	0.00004	0.00004	0.00004	**0.00128**				
	Linuron (aq)	TM185	mg/l	0.00004	0.00004	0.00004	0.00004	0.00004	0.00004	Y	Y	N	Substances commonly detected in leachate, however not detected as principal risk drivers. No detections of these substances in underdrainage, groundwater or surface water since 2009
	Methabenzthiazuron (aq)	TM185	mg/l	0.00004	0.00004	0.00004	0.00004	0.00004	0.00004				
	Monuron (aq)	TM185	mg/l	0.00003	**0.000499**	**0.000377**	**0.000645**	**0.000855**	**0.000634**				
	Prometryn (aq)	TM185	mg/l	0.00004	0.00004	0.00004	0.00004	0.00004	0.00004				
	Propazine (aq)	TM185	mg/l	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006				
	Propham (aq)	TM185	mg/l	0.00009	0.00009	0.00009	0.00009	0.00009	0.00009				
	Simazine (aq)	TM185	mg/l	0.00004	0.00004	0.00004	0.00004	0.00004	0.00004				
	Tertbutryn (aq)	TM185	mg/l	0.00004	**0.000441**	0.00004	0.00004	**0.000417**	**0.000652**				
SVOCs	1,2,4-Trichlorobenzene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	1,2-Dichlorobenzene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	1,3-Dichlorobenzene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	1,4-Dichlorobenzene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	2,4,5-Trichlorophenol (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	2,4,6-Trichlorophenol (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	2,4-Dichlorophenol (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	2,4-Dimethylphenol (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	2,4-Dinitrotoluene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	2,6-Dinitrotoluene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	2-Chloronaphthalene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	2-Chlorophenol (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	2-Methylnaphthalene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	2-Methylphenol (aq)	TM176	mg/l	0.001	**0.0145**	0.001	0.001	**0.0166**	**0.0161**				
	2-Nitroaniline (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	2-Nitrophenol (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	3-Nitroaniline (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	4-Bromophenylphenylether (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	4-Chloro-3-methylphenol (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	4-Chloroaniline (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	4-Chlorophenylphenylether (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	4-Methylphenol (aq)	TM176	mg/l	0.001	**0.503**	0.001	0.001	**0.0376**	**1.42**				
	4-Nitroaniline (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	4-Nitrophenol (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
PAH	Acenaphthene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
PAH	Acenaphthylene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
PAH	Anthracene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Azobenzene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
PAH	Benzo(a)anthracene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
PAH	Benzo(a)pyrene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001	Y	Y	N*	SVOC suite TM176 to be included for leachates and underdrainage samples.
PAH	Benzo(b)fluoranthene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				*Groundwater samples to be run for PAHs (TM178) only. 4-methylphenol to be covered by phenol suite (TM205)
PAH	Benzo(g,h,i)perylene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
PAH	Benzo(k)fluoranthene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	bis(2-Chloroethoxy)methane (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	bis(2-Chloroethyl)ether (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	bis(2-Ethylhexyl) phthalate (aq)	TM176	mg/l	0.002	0.002	**0.136**	0.002	0.002	0.002				
	Butylbenzyl phthalate (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Carbazole (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
PAH	Chrysene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Dibenzo(a,h)anthracene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Dibenzofuran (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Diethyl phthalate (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Dimethyl phthalate (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
PAH	Fluoranthene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
PAH	Fluorene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Hexachlorobenzene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Hexachlorobutadiene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Hexachlorocyclopentadiene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Hexachloroethane (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
PAH	Indeno(1,2,3-cd)pyrene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Isophorone (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
PAH	Naphthalene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	n-Dibutyl phthalate (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	n-Dioctyl phthalate (aq)	TM176	mg/l	0.005	0.005	0.005	0.005	0.005	0.005				
	Nitrobenzene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	n-Nitroso-n-dipropylamine (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Pentachlorophenol (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
PAH	Phenanthrene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Phenol (aq)	TM176	mg/l	0.001	**0.396**	0.001	0.001	**0.0328**	**0.239**				
PAH	Pyrene (aq)	TM176	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
TPH	Aliphatics >C10-C12	TM245	mg/l	0.01	**0.098**	**0.083**	**0.115**	**0.142**	**0.147**				
	Aliphatics >C12-C16 (aq)	TM174	mg/l	0.01	0.01	**0.121**	0.01	0.01	0.01				

Sub-Suite	Test	Method	Unit	MDL	CELL SUMP 1/2	CELL SUMP 3/4	CELL SUMP 5	CELL SUMP 6	CELL SUMP 7	Leachate	Under-drainage	Ground water	Comment / Justification
					12/11/2013	12/11/2013	12/11/2013	12/11/2013	12/11/2013				
	Aliphatics >C16-C21 (aq)	TM174	mg/l	0.01	0.01	**10.6**	**0.092**	0.01	0.01				
	Aliphatics >C21-C35 (aq)	TM174	mg/l	0.01	**0.11**	**36.5**	**0.393**	**0.099**	**0.091**				
	Aliphatics >C5-C6	TM245	mg/l	0.01	**0.257**	**0.12**	**0.176**	**0.276**	**0.524**				
	Aliphatics >C6-C8	TM245	mg/l	0.01	**0.089**	**0.04**	**0.069**	**0.082**	**0.184**				
	Aliphatics >C8-C10	TM245	mg/l	0.01	**0.042**	**0.037**	**0.039**	**0.046**	**0.073**				
	Aromatics >EC10-EC12	TM245	mg/l	0.01	**0.065**	**0.055**	**0.076**	**0.095**	**0.098**				
	Aromatics >EC12-EC16 (aq)	TM174	mg/l	0.01	**0.054**	**0.069**	**0.057**	**0.053**	**0.073**				
	Aromatics >EC16-EC21 (aq)	TM174	mg/l	0.01	**0.024**	**0.073**	**0.049**	**0.029**	**0.035**				
	Aromatics >EC21-EC35 (aq)	TM174	mg/l	0.01	**0.073**	**0.183**	**0.083**	**0.099**	**0.088**				
	Aromatics >EC5-EC7	TM245	mg/l	0.01	0.01	0.01	0.01	0.01	0.01				Speciated TPH to be retained within List I suite for leachate provided no evidence of free phase is recorded.
	Aromatics >EC7-EC8	TM245	mg/l	0.01	**0.013**	0.01	0.01	**0.011**	**0.028**				
	Aromatics >EC8-EC10	TM245	mg/l	0.01	**0.073**	**0.04**	**0.048**	**0.076**	**0.144**	Y	Y	N*	
	Benzene	TM245	mg/l	0.007	0.007	0.007	0.007	0.007	0.007				*Banded TPH to be used for groundwater, followed by BTEX analysis if detected.
	Ethylbenzene	TM245	mg/l	0.005	**0.015**	**0.006**	0.005	**0.015**	**0.034**				
	GRO >C5-C12	TM245	mg/l	0.05	**0.638**	**0.377**	**0.527**	**0.731**	**1.2**				
	GRO Surrogate %recovery**	TM245	mg/l	0	**94**	**86**	**91**	**79**	**89**				
	m,p-Xylene	TM245	mg/l	0.008	**0.02**	0.008	**0.01**	**0.019**	**0.042**				
	Methyl tertiary butyl ether (MTBE)	TM245	mg/l	0.003	0.003	0.003	0.003	0.003	0.003				
	o-Xylene	TM245	mg/l	0.003	**0.01**	**0.005**	**0.01**	**0.01**	**0.019**				
	Sum of detected BTEX	TM245	mg/l	0.028	**0.058**	0.028	0.028	**0.055**	**0.123**				
	Sum of detected Xylenes	TM245	mg/l	0.011	**0.03**	0.011	**0.02**	**0.029**	**0.061**				
	Toluene	TM245	mg/l	0.004	**0.013**	0.004	0.004	**0.011**	**0.028**				
	Total Aliphatics & Aromatics >C5-35 (aq)	TM174	mg/l	0.01	**0.899**	**47.9**	**1.2**	**1.01**	**1.49**				
	Total Aliphatics >C12-C35 (aq)	TM174	mg/l	0.01	**0.11**	**47.2**	**0.485**	**0.099**	**0.091**				
	Total Aromatics >EC12-EC35 (aq)	TM174	mg/l	0.01	**0.151**	**0.325**	**0.189**	**0.181**	**0.196**				
VOCs (target List)	1,1,1,2-Tetrachloroethane	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	1,1,1-Trichloroethane	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	1,1,2,2-Tetrachloroethane	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	1,1,2-Trichloroethane	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	1,1-Dichloroethane	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	1,1-Dichloroethene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	1,1-Dichloropropene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	1,2,3-Trichlorobenzene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	1,2,3-Trichloropropane	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	1,2,4-Trichlorobenzene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	1,2,4-Trimethylbenzene	TM208	mg/l	0.001	**0.00308**	**0.00261**	**0.0025**	**0.00407**	**0.00773**				
	1,2-Dibromo-3-chloropropane	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	1,2-Dibromoethane	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	1,2-Dichlorobenzene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	1,2-Dichloroethane	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	1,2-Dichloropropane	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	1,3,5-Trichlorobenzene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	1,3,5-Trimethylbenzene	TM208	mg/l	0.001	0.001	0.001	**0.00117**	**0.00116**	**0.00209**				
	1,3-Dichlorobenzene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	1,3-Dichloropropane	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	1,4-Dichlorobenzene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	2,2-Dichloropropane	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	2-Chlorotoluene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	4-Bromofluorobenzene**	TM208	mg/l	0	**74.3**	**67.4**	**75.9**	**74.8**	**74**				
	4-Chlorotoluene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	4-iso-Propyltoluene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	**0.00477**				
	Benzene	TM208	mg/l	0.001	**0.00187**	**0.0015**	**0.00293**	**0.00404**	**0.00415**				
	Bromobenzene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Bromochloromethane	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Bromodichloromethane	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Bromoform	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				Leachate and underdrainage to be analysied for full VOC suite (TM208).
	Bromomethane	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Carbon disulphide	TM208	mg/l	0.001	**0.00446**	0.001	0.001	0.001	**0.00644**	Y	Y	N*	*Groundwater boreholes only to be analysed for BTEX (TM208) where TPH detections confirmed by banded TPH screen
	Carbontetrachloride	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Chlorobenzene	TM208	mg/l	0.001	0.001	**0.00128**	0.001	0.001	0.001				
	Chloroethane	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Chloroform	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Chloromethane	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	cis-1,2-Dichloroethene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	cis-1,3-Dichloropropene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Dibromochloromethane	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Dibromofluoromethane**	TM208	mg/l	0	**77.2**	**80.7**	**80.1**	**78.6**	**78.8**				
	Dibromomethane	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Dichlorodifluoromethane	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Dichloromethane	TM208	mg/l	0.003	0.003	0.003	0.003	0.003	0.003				
	Ethylbenzene	TM208	mg/l	0.001	**0.0114**	**0.00521**	**0.00167**	**0.0138**	**0.0305**				
	Hexachlorobutadiene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Isopropylbenzene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	m,p-Xylene	TM208	mg/l	0.001	**0.0151**	**0.00325**	**0.00704**	**0.016**	**0.0375**				
	Methyl tertiary butyl ether (MTBE)	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Naphthalene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	n-Butylbenzene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	o-Xylene	TM208	mg/l	0.001	**0.00639**	**0.00277**	**0.00643**	**0.00842**	**0.0165**				
	Propylbenzene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	sec-Butylbenzene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Styrene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	tert-Amyl methyl ether (TAME)	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	tert-Butylbenzene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Tetrachloroethene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Toluene	TM208	mg/l	0.001	**0.0125**	0.001	**0.00244**	**0.0113**	**0.0301**				
	Toluene-d8**	TM208	mg/l	0	**76.2**	**72.7**	**75.8**	**75.2**	**77**				
	trans-1,2-Dichloroethene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	trans-1,3-Dichloropropene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Trichloroethene	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Trichlorofluoromethane	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				
	Vinyl chloride	TM208	mg/l	0.001	0.001	0.001	0.001	0.001	0.001				

APPENDIX C

LABORATORY CERTIFICATES (ANNUAL MONITORING)

ALcontrol Laboratories

Unit 7-8 Hawarden Business Park
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Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
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email: mkt@alcontrol.com
Website: www.alcontrol.com

CWM Environmental Ltd
Nantyclaws Landfill Site
Llanddarg Road
Carmarthen
Carmarthenshire
SA32 8BG

Attention: Mike Lewis

CERTIFICATE OF ANALYSIS

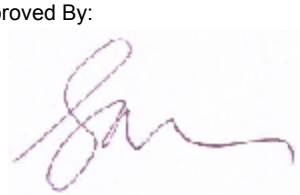
Date:	17 November 2014
Customer:	H_CWMENV_NAN
Sample Delivery Group (SDG):	141017-59
Your Reference:	
Location:	Phase 2-3
Report No:	292090

We received 12 samples on Friday October 17, 2014 and 12 of these samples were scheduled for analysis which was completed on Monday November 17, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:



Sonia McWhan

Operations Manager

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Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No.

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
10205711	BH3/2			16/10/2014
10205708	BH3/3			16/10/2014
10205199	BH3/4			16/10/2014
10205709	BH3/5			16/10/2014
10205198	BH3/6			16/10/2014
10205197	BH3/8			16/10/2014
10205195	BH5/2			16/10/2014
10205194	BH208			16/10/2014
10205188	NACW203			16/10/2014
10205190	NACW205			16/10/2014
10205191	NACW212			16/10/2014
10205193	NACW219			16/10/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)	10205711	10205708	10205199	10205709	10205198	10205197	10205195
Customer Sample Reference	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8	BH5/2
AGS Reference							
Depth (m)							

Container	1l Glass bottle (ALE	1lplastic (ALE221)	Dissolved Metals Pr	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1lplastic (ALE221)	Dissolved Metals Pr	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1lplastic (ALE221)	Dissolved Metals Pr	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1lplastic (ALE221)	Dissolved Metals Pr	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1lplastic (ALE221)	Dissolved Metals Pr	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1lplastic (ALE221)	Dissolved Metals Pr	H2SO4 (ALE244)
Acid Herbicides (W)	All	NDPs: 0 Tests: 12	X						X					X					X						X						X				
Alkalinity as CaCO3	All	NDPs: 0 Tests: 12		X						X					X					X						X						X				
Alkalinity Filtered as CaCO3	All	NDPs: 0 Tests: 12		X						X					X					X						X						X				
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 12				X					X					X					X						X						X				X
Anions by Kone (w)	All	NDPs: 0 Tests: 12		X						X					X					X						X						X				
BOD True Total	All	NDPs: 0 Tests: 12		X						X					X					X						X						X				
COD Unfiltered	All	NDPs: 0 Tests: 12		X						X					X					X						X						X				
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 12		X						X					X					X						X						X				
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 12		X						X					X					X						X						X				
EPH (DRO) (C10-C40) Aqueous (W)	All	NDPs: 0 Tests: 12	X						X					X					X						X						X				
GRO by GC-FID (W)	All	NDPs: 0 Tests: 12					X					X					X					X						X						X		
Ionic Balance	All	NDPs: 0 Tests: 12		X						X					X					X						X						X				
Mercury Dissolved	All	NDPs: 0 Tests: 12			X						X					X					X						X						X				X
Metals by iCap-OES Dissolved (W)	All	NDPs: 0 Tests: 12		X						X					X					X						X						X				
Nitrite by Kone (w)	All	NDPs: 0 Tests: 12				X					X					X					X						X						X				

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			10205711	10205708	10205199	10205709	10205198	10205197	10205195
Lab Sample No(s)									
Customer Sample Reference			BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8	BH5/2
AGS Reference									
Depth (m)									
Container			1l Glass bottle (ALE	1lplastic (ALE221)	Dissolved Metals Pr	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1lplastic (ALE221)	Dissolved Metals Pr	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1lplastic (ALE221)	Dissolved Metals Pr	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1lplastic (ALE221)	Dissolved Metals Pr	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1lplastic (ALE221)	Dissolved Metals Pr	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1lplastic (ALE221)	Dissolved Metals Pr	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1lplastic (ALE221)	Dissolved Metals Pr	H2SO4 (ALE244)
pH Value	All	NDPs: 0 Tests: 12		X						X						X						X						X						X						X			
Phenols by ms (w)	All	NDPs: 0 Tests: 12	X						X						X						X						X						X						X			
Suspended Solids	All	NDPs: 0 Tests: 12		X						X						X						X						X						X						X			
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 12	X						X						X						X						X						X						X			
Total EPH (aq)	All	NDPs: 0 Tests: 12	X						X						X						X						X						X						X			
Total Organic and Inorganic Carbon	All	NDPs: 0 Tests: 12	X						X						X						X						X						X						X			
VOC MS (W)	All	NDPs: 0 Tests: 12					X						X					X						X						X						X						X		

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

| | | | | |

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			10205195	BH5/2			NaOH (ALE245)
							Vial (ALE297)
			10205194	BH208			1l Glass bottle (ALE
							1plastic (ALE221)
							Dissolved Metals Pr
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
			10205188	NACW203			1l Glass bottle (ALE
							1plastic (ALE221)
							Dissolved Metals Pr
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
			10205190	NACW205			1l Glass bottle (ALE
							1plastic (ALE221)
							Dissolved Metals Pr
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
			10205191	NACW212			1l Glass bottle (ALE
							1plastic (ALE221)
							Dissolved Metals Pr
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
			10205193	NACW219			1l Glass bottle (ALE
							1plastic (ALE221)
							Dissolved Metals Pr
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
pH Value	All	NDPs: 0 Tests: 12			X		X
Phenols by ms (w)	All	NDPs: 0 Tests: 12		X			X
Suspended Solids	All	NDPs: 0 Tests: 12			X		X
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 12		X			X
Total EPH (aq)	All	NDPs: 0 Tests: 12		X			X
Total Organic and Inorganic Carbon	All	NDPs: 0 Tests: 12		X			X
VOC MS (W)	All	NDPs: 0 Tests: 12	X			X	

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			SDG Ref	141017-59	141017-59	141017-59	141017-59	141017-59	141017-59
			Lab Sample No.(s)	10205711	10205708	10205199	10205709	10205198	10205197
			AGS Reference						
Ionic balance	% Diff	Calulation		-2.6	-0.189	-1.49	-5.27	1.25	-3.62
Suspended solids, Total	<2 mg/l	TM022		1070 #	199 #	1070 #	335 #	748 #	1050 #
Alkalinity, Total as CaCO3	<2 mg/l	TM043		140 #	50 #	100 #	65 #	80 #	85 #
Alkalinity,Total as CaCO3 (diss.filt)	<2 mg/l	TM043		140	45	105	70	75	80
Alkalinity, Bicarbonate as CaCO3 (diss.filt)	<2 mg/l	TM043		140	45	105	70	75	80
BOD, unfiltered	<1 mg/l	TM045		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Organic Carbon, Total	<3 mg/l	TM090		<3 ♦ #	<3 ♦ #	<3 ♦ #	<3 ♦ #	8.57 ♦ #	6.55 ♦ #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	<0.2 #	0.362 #	<0.2 #	<0.2 #	<0.2 #
COD, unfiltered	<7 mg/l	TM107		87.4 #	24.6 #	81.8 #	53.3 #	71.1 #	72.5 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.269 #	0.156 #	0.226 #	0.176 #	0.269 #	0.27 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		1.36 #	0.501 #	1.15 #	0.68 #	1.07 #	0.716 #
Copper (diss.filt)	<0.85 µg/l	TM152		<0.85 #	<0.85 #	<0.85 #	<0.85 #	3.17 #	4.04 #
Lead (diss.filt)	<0.02 µg/l	TM152		<0.02 #	0.022 #	<0.02 #	0.028 #	0.073 #	0.058 #
Manganese (diss.filt)	<0.04 µg/l	TM152		256 #	44.2 #	155 #	86 #	255 #	237 #
Nickel (diss.filt)	<0.15 µg/l	TM152		1.01 #	0.695 #	0.974 #	0.752 #	3 #	2.75 #
Zinc (diss.filt)	<0.41 µg/l	TM152		<0.41 #	1.82 #	<0.41 #	1.5 #	1.22 #	0.837 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		<46 #	<46 #	<46 #	<46 #	135 #	90.2 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		<100	<100	<100	<100	135	<100
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #
Nitrite as NO2	<0.05 mg/l	TM184		<0.05 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #
Sulphate	<2 mg/l	TM184		4.6 #	16.1 #	9.1 #	13.7 #	43.9 #	45.9 #
Chloride	<2 mg/l	TM184		10.5 #	12.3 #	10.8 #	12.1 #	16.9 #	17.6 #
Nitrate as NO3	<0.3 mg/l	TM184		3.96 #	2.27 #	2.84 #	2.6 #	2.75 #	3 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		0.901 #	0.518 #	0.646 #	0.593 #	0.627 #	0.684 #
Phenol	<0.5 µg/l	TM205		<1	<1	<1	<1	<1	<1
2-methylphenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
3-methylphenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-methylphenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-chlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dimethylphenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-chloro-3-methylphenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			SDG Ref	141017-59	141017-59	141017-59	141017-59	141017-59	141017-59
			Lab Sample No.(s)	10205711	10205708	10205199	10205709	10205198	10205197
			AGS Reference						
2,6-dichlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dichlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-nitrophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-trichlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-trichlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-nitrophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,3,5,6-tetrachlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,3,4,6-tetrachlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dinitrophenol	<2.5 µg/l	TM205		<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
DNOC	<3 µg/l	TM205		<3	<3	<3	<3	<3	<3
Pentachlorophenol	<2 µg/l	TM205		<2	<2	<2	<2	<2	<2
Dinoseb	<4 µg/l	TM205		<4	<4	<4	<4	<4	<4
Calcium (diss.filt)	<0.012 mg/l	TM228		48.9 #	22.2 #	38.9 #	26.8 #	39.8 #	37.8 #
Sodium (diss.filt)	<0.076 mg/l	TM228		7.49 #	6.99 #	7.29 #	6.99 #	10.7 #	10.5 #
Magnesium (diss.filt)	<0.036 mg/l	TM228		3.95 #	2.42 #	3.37 #	2.65 #	5.92 #	5.82 #
Potassium (diss.filt)	<1 mg/l	TM228		<1 #	1.24 #	<1 #	1.02 #	2.66 #	2.58 #
Iron (diss.filt)	<0.019 mg/l	TM228		<0.019 #	<0.019 #	0.0207 #	<0.019 #	0.0752 #	0.0406 #
pH	<1 pH Units	TM256		8.23 #	7.56 #	7.43 #	7.72 #	7.25 #	7.23 #

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH5/2	BH208	NACW203	NACW205	NACW212	NACW219
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			SDG Ref	141017-59	141017-59	141017-59	141017-59	141017-59	141017-59
			Lab Sample No.(s)	10205195	10205194	10205188	10205190	10205191	10205193
			AGS Reference						
Ionic balance	% Diff	Calulation		-4.35	-6.16	-4.96	-4.64	-1.52	-2.27
Suspended solids, Total	<2 mg/l	TM022		79.5 #	127 #	1600 #	2140 #	267 #	98.1 #
Alkalinity, Total as CaCO3	<2 mg/l	TM043		230 #	230 #	240 #	465 #	85 #	200 #
Alkalinity,Total as CaCO3 (diss.filt)	<2 mg/l	TM043		235	245	235	235	90	205
Alkalinity, Bicarbonate as CaCO3 (diss.filt)	<2 mg/l	TM043		235	245	235	235	90	205
BOD, unfiltered	<1 mg/l	TM045		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Organic Carbon, Total	<3 mg/l	TM090		<3 #	<3 ♦ #	3.45 ♦ #	<3 ♦ #	<3 ♦ #	7.08 ♦ #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #
COD, unfiltered	<7 mg/l	TM107		10.9 #	11.6 #	284 #	43.1 #	29.1 #	31.5 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.452 #	0.445 #	0.462 #	0.467 #	0.243 #	0.436 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		2.13 #	2.33 #	2.01 #	2.18 #	1.02 #	1.94 #
Copper (diss.filt)	<0.85 µg/l	TM152		<0.85 #	<0.85 #	<0.85 #	<0.85 #	1.93 #	1.48 #
Lead (diss.filt)	<0.02 µg/l	TM152		0.022 #	0.02 #	0.033 #	0.076 #	0.039 #	0.052 #
Manganese (diss.filt)	<0.04 µg/l	TM152		10.2 #	8.73 #	3.31 #	4.64 #	1.31 #	14.7 #
Nickel (diss.filt)	<0.15 µg/l	TM152		2.02 #	2.01 #	1.42 #	1.44 #	1.25 #	2.57 #
Zinc (diss.filt)	<0.41 µg/l	TM152		2.78 #	2.85 #	<0.41 #	<0.41 #	2.1 #	2.11 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		<46 #	<46 #	622 #	815 #	<46 #	<46 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		<100	<100	622	815	<100	<100
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #
Nitrite as NO2	<0.05 mg/l	TM184		0.087 #	0.084 #	<0.05 #	<0.05 #	0.051 #	0.109 #
Sulphate	<2 mg/l	TM184		9.1 #	8 #	10.6 #	10.4 #	18.3 #	22.3 #
Chloride	<2 mg/l	TM184		17 #	17 #	21.6 #	21.8 #	16.3 #	23.6 #
Nitrate as NO3	<0.3 mg/l	TM184		10.1 #	10.2 #	7.94 #	8 #	3.98 #	8.19 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		2.3 #	2.34 #	1.8 #	1.81 #	0.915 #	1.88 #
Phenol	<0.5 µg/l	TM205		<1	<1	<1	<1	<1	<1
2-methylphenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
3-methylphenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-methylphenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-chlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dimethylphenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-chloro-3-methylphenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH5/2	BH208	NACW203	NACW205	NACW212	NACW219
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			SDG Ref	141017-59	141017-59	141017-59	141017-59	141017-59	141017-59
			Lab Sample No.(s)	10205195	10205194	10205188	10205190	10205191	10205193
			AGS Reference						
2,6-dichlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dichlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-nitrophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-trichlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-trichlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-nitrophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,3,5,6-tetrachlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	0.58	<0.5	<0.5
2,3,4,6-tetrachlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	0.5	<0.5	<0.5
2,4-dinitrophenol	<2.5 µg/l	TM205		<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
DNOC	<3 µg/l	TM205		<3	<3	<3	4.56	<3	<3
Pentachlorophenol	<2 µg/l	TM205		<2	<2	<2	<2	<2	<2
Dinoseb	<4 µg/l	TM205		<4	<4	<4	<4	<4	<4
Calcium (diss.filt)	<0.012 mg/l	TM228		75.5 #	75.2 #	81.8 #	82.4 #	35 #	71.3 #
Sodium (diss.filt)	<0.076 mg/l	TM228		13.9 #	13.7 #	10.3 #	10.3 #	10.2 #	16 #
Magnesium (diss.filt)	<0.036 mg/l	TM228		8.48 #	8.5 #	7.25 #	7.26 #	4.14 #	7.89 #
Potassium (diss.filt)	<1 mg/l	TM228		2.25 #	2.18 #	1.15 #	1.02 #	3.7 #	8.79 #
Iron (diss.filt)	<0.019 mg/l	TM228		<0.019 #	<0.019 #	<0.019 #	<0.019 #	<0.019 #	<0.019 #
pH	<1 pH Units	TM256		7.95 #	7.98 #	7.69 #	7.66 #	8.04 #	8.29 #

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Acid Herbicides (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			SDG Ref	141017-59	141017-59	141017-59	141017-59	141017-59	141017-59
			Lab Sample No.(s)	10205711	10205708	10205199	10205709	10205198	10205197
			AGS Reference						
Phenoxyacetic acid (PAA)	<0.031 µg/l	TM186		<0.031 ♦ #	<0.031 ♦ #	<0.031 ♦ #	<0.031 ♦ #	<0.031 ♦ #	<0.038 ♦ #
Dicamba	<0.033 µg/l	TM186		<0.033 ♦ #	<0.033 ♦ #	<0.033 ♦ #	<0.033 ♦ #	<0.033 ♦ #	<0.033 ♦ #
Phenoxypropionic acid (PPA)	<0.023 µg/l	TM186		<0.023	<0.023	<0.023	<0.023	<0.023	<0.023
4-Chlorophenoxyacetic acid (4-CPA)	<0.037 µg/l	TM186		<0.037 ♦ #	<0.037 ♦ #	<0.037 ♦ #	<0.037 ♦ #	<0.037 ♦ #	<0.037 ♦ #
4-Phenoxybutyric acid	<0.019 µg/l	TM186		<0.019 ♦ #	<0.019 ♦ #	<0.019 ♦ #	<0.019 ♦ #	<0.019 ♦ #	<0.019 ♦ #
Bentazone	<0.018 µg/l	TM186		<0.018 ♦ #	<0.018 ♦ #	<0.018 ♦ #	<0.018 ♦ #	<0.018 ♦ #	<0.018 ♦ #
Bromoxynil	<0.022 µg/l	TM186		<0.022	<0.022	<0.022	<0.022	<0.022	<0.022
2,4-Dichlorophenoxy acetic acid (2,4-D)	<0.026 µg/l	TM186		<0.026 ♦ #	<0.026 ♦ #	<0.026 ♦ #	<0.026 ♦ #	<0.026 ♦ #	<0.026 ♦ #
2-methyl-4-Chlorophenoxy acetic acid (MCPA)	<0.03 µg/l	TM186		<0.03 ♦ #	<0.03 ♦ #	<0.03 ♦ #	<0.03 ♦ #	<0.03 ♦ #	<0.03 ♦ #
2-methyl-4,6-Dinitrophenol	<0.041 µg/l	TM186		<0.041	<0.041	<0.041	<0.041	<0.041	<0.041
Triclopyr	<0.022 µg/l	TM186		<0.022 ♦ #	<0.022 ♦ #	<0.022 ♦ #	<0.022 ♦ #	<0.022 ♦ #	<0.022 ♦ #
Ioxynil	<0.017 µg/l	TM186		<0.017	<0.017	<0.017	<0.017	<0.017	<0.017
2,4-Dichlorophenoxy propanoic acid (2,4-DP)	<0.015 µg/l	TM186		<0.015 ♦ #	<0.015 ♦ #	<0.015 ♦ #	<0.015 ♦ #	<0.015 ♦ #	<0.015 ♦ #
2,4,5-Trichlorophenol (2,4,5-T)	<0.029 µg/l	TM186		<0.029 ♦ #	<0.029 ♦ #	<0.029 ♦ #	<0.029 ♦ #	<0.029 ♦ #	<0.029 ♦ #
Mecoprop (MCPP)	<0.025 µg/l	TM186		<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
4-(2,4-Dichlorophenoxy) butyric acid (2,4-DB)	<0.022 µg/l	TM186		<0.022 ♦ #	<0.022 ♦ #	<0.022 ♦ #	<0.022 ♦ #	<0.022 ♦ #	<0.022 ♦ #
4-(4-Chloro-o-tolyloxy) butyric acid (MCPB)	<0.029 µg/l	TM186		<0.029 ♦	<0.029 ♦	<0.029 ♦	<0.029 ♦	<0.029 ♦	<0.029 ♦
2-(2,4,5-Trichlorophenoxy) proprionic acid	<0.024 µg/l	TM186		<0.024 ♦ #	<0.024 ♦ #	<0.024 ♦ #	<0.024 ♦ #	<0.024 ♦ #	<0.024 ♦ #
Dinoseb	<0.027 µg/l	TM186		<0.027	<0.027	<0.027	<0.027	<0.027	<0.027
Pentachlorophenol	<0.032 µg/l	TM186		<0.032	<0.032	<0.032	<0.032	<0.032	<0.032

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Acid Herbicides (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH5/2	BH208	NACW203	NACW205	NACW212	NACW219
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			SDG Ref	141017-59	141017-59	141017-59	141017-59	141017-59	141017-59
			Lab Sample No.(s)	10205195	10205194	10205188	10205190	10205191	10205193
			AGS Reference						
Phenoxyacetic acid (PAA)	<0.031 µg/l	TM186		0.113 ♦ #	<0.031 ♦ #	<0.031 ♦ #	<0.031 ♦ #	<0.031 ♦ #	<0.169 ♦ #
Dicamba	<0.033 µg/l	TM186		<0.033 ♦ #	<0.033 ♦ #	<0.033 ♦ #	<0.033 ♦ #	<0.033 ♦ #	<0.033 ♦ #
Phenoxypropionic acid (PPA)	<0.023 µg/l	TM186		<0.023	<0.023	<0.023	<0.023	<0.023	<0.023
4-Chlorophenoxyacetic acid (4-CPA)	<0.037 µg/l	TM186		<0.037 ♦ #	<0.037 ♦ #	<0.037 ♦ #	<0.037 ♦ #	<0.037 ♦ #	<0.037 ♦ #
4-Phenoxybutyric acid	<0.019 µg/l	TM186		<0.019 ♦ #	<0.019 ♦ #	<0.019 ♦ #	<0.019 ♦ #	<0.019 ♦ #	<0.019 ♦ #
Bentazone	<0.018 µg/l	TM186		<0.018 ♦ #	<0.018 ♦ #	<0.018 ♦ #	<0.018 ♦ #	<0.018 ♦ #	<0.018 ♦ #
Bromoxynil	<0.022 µg/l	TM186		<0.022	<0.022	<0.022	<0.022	<0.022	<0.022
2,4-Dichlorophenoxy acetic acid (2,4-D)	<0.026 µg/l	TM186		<0.026 ♦ #	<0.026 ♦ #	<0.026 ♦ #	<0.026 ♦ #	<0.026 ♦ #	<0.026 ♦ #
2-methyl-4-Chlorophenoxy acetic acid (MCPA)	<0.03 µg/l	TM186		<0.03 ♦ #	<0.03 ♦ #	<0.03 ♦ #	<0.03 ♦ #	<0.03 ♦ #	<0.03 ♦ #
2-methyl-4,6-Dinitrophenol	<0.041 µg/l	TM186		<0.041	<0.041	<0.041	<0.041	<0.041	<0.041
Triclopyr	<0.022 µg/l	TM186		<0.022 ♦ #	<0.022 ♦ #	<0.022 ♦ #	<0.022 ♦ #	<0.022 ♦ #	<0.022 ♦ #
Ioxynil	<0.017 µg/l	TM186		<0.017	<0.017	<0.017	<0.017	<0.017	<0.017
2,4-Dichlorophenoxy propanoic acid (2,4-DP)	<0.015 µg/l	TM186		<0.015 ♦ #	<0.015 ♦ #	<0.015 ♦ #	<0.015 ♦ #	<0.015 ♦ #	<0.015 ♦ #
2,4,5-Trichlorophenol (2,4,5-T)	<0.029 µg/l	TM186		<0.029 ♦ #	<0.029 ♦ #	<0.029 ♦ #	<0.029 ♦ #	<0.029 ♦ #	<0.029 ♦ #
Mecoprop (MCPP)	<0.025 µg/l	TM186		<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
4-(2,4-Dichlorophenoxy) butyric acid (2,4-DB)	<0.022 µg/l	TM186		<0.022 ♦ #	<0.0224 ♦ #	<0.022 ♦ #	<0.022 ♦ #	<0.022 ♦ #	<0.022 ♦ #
4-(4-Chloro-o-tolyloxy) butyric acid (MCPB)	<0.029 µg/l	TM186		<0.029 ♦	<0.029 ♦	<0.029 ♦	<0.029 ♦	<0.029 ♦	<0.029 ♦
2-(2,4,5-Trichlorophenoxy) proprionic acid	<0.024 µg/l	TM186		<0.024 ♦ #	<0.024 ♦ #	<0.024 ♦ #	<0.024 ♦ #	<0.024 ♦ #	<0.024 ♦ #
Dinoseb	<0.027 µg/l	TM186		<0.027	<0.027	<0.027	<0.027	<0.027	<0.027
Pentachlorophenol	<0.032 µg/l	TM186		<0.032	<0.032	<0.032	<0.032	<0.032	<0.032

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			SDG Ref	141017-59	141017-59	141017-59	141017-59	141017-59	141017-59
			Lab Sample No.(s)	10205711	10205708	10205199	10205709	10205198	10205197
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 1 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		<7 #	<7 #	<7 #	<7 1 #	<7 #	<7 #
Toluene	<4 µg/l	TM245		<4 #	<4 #	<4 #	<4 1 #	<4 #	<4 #
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	<5 #	<5 1 #	<5 #	<5 #
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	<8 #	<8 1 #	<8 #	<8 #
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 1 #	<3 #	<3 #
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	<28	<28 1	<28	<28
EPH (C6-C10)	<100 µg/l	TM245		<100	<100	<100	<100 1	<100	<100

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH5/2	BH208	NACW203	NACW205	NACW212	NACW219
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			SDG Ref	141017-59	141017-59	141017-59	141017-59	141017-59	141017-59
			Lab Sample No.(s)	10205195	10205194	10205188	10205190	10205191	10205193
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 1 #	<3 1 #	<3 #	<3 1 #	<3 #	<3 1 #
Benzene	<7 µg/l	TM245		<7 1 #	<7 1 #	<7 #	<7 1 #	<7 #	<7 1 #
Toluene	<4 µg/l	TM245		<4 1 #	<4 1 #	<4 #	<4 1 #	<4 #	<4 1 #
Ethylbenzene	<5 µg/l	TM245		<5 1 #	<5 1 #	<5 #	<5 1 #	<5 #	<5 1 #
m,p-Xylene	<8 µg/l	TM245		<8 1 #	<8 1 #	<8 #	<8 1 #	<8 #	<8 1 #
o-Xylene	<3 µg/l	TM245		<3 1 #	<3 1 #	<3 #	<3 1 #	<3 #	<3 1 #
Sum of detected BTEX	<28 µg/l	TM245		<28 1	<28 1	<28	<28 1	<28	<28 1
EPH (C6-C10)	<100 µg/l	TM245		<100 1	<100 1	<100	<100 1	<100	<100 1

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			SDG Ref	141017-59	141017-59	141017-59	141017-59	141017-59	141017-59
			Lab Sample No.(s)	10205711	10205708	10205199	10205709	10205198	10205197
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			SDG Ref	141017-59	141017-59	141017-59	141017-59	141017-59	141017-59
			Lab Sample No.(s)	10205711	10205708	10205199	10205709	10205198	10205197
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbazole (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chrysene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Fluorene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene (aq)	<1 µg/l	TM176		<2.58 #	<2.58 #	<2.58 #	<2.58 #	<2.58 #	<2.58 #
Isophorone (aq)	<1 µg/l	TM176		<1.23 #	<1.23 #	<1.23 #	<1.23 #	<1.23 #	<1.23 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenanthrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH5/2	BH208	NACW203	NACW205	NACW212	NACW219
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			SDG Ref	141017-59	141017-59	141017-59	141017-59	141017-59	141017-59
			Lab Sample No.(s)	10205195	10205194	10205188	10205190	10205191	10205193
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Acenaphthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH5/2	BH208	NACW203	NACW205	NACW212	NACW219
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			SDG Ref	141017-59	141017-59	141017-59	141017-59	141017-59	141017-59
			Lab Sample No.(s)	10205195	10205194	10205188	10205190	10205191	10205193
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbazole (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chrysene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Fluorene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene (aq)	<1 µg/l	TM176		<2.58 #	<2.58 #	<2.58 #	<2.58 #	<2.58 #	<2.58 #
Isophorone (aq)	<1 µg/l	TM176		<1.23 #	<1.23 #	<1.23 #	<1.23 #	<1.23 #	<1.23 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenanthrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			SDG Ref	141017-59	141017-59	141017-59	141017-59	141017-59	141017-59
			Lab Sample No.(s)	10205711	10205708	10205199	10205709	10205198	10205197
			AGS Reference						
Dibromofluoromethane**	%	TM208		111	113	106	107 1	109	111
Toluene-d8**	%	TM208		101	101	99.4	101 1	98.8	99.2
4-Bromofluorobenzene**	%	TM208		95.4	98	98.3	101 1	98	99.3
Dichlorodifluoromethane	<1 µg/l	TM208		<1	<1	<1	<1 1	<1	<1
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 1 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1 1	<1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		4.1 #	4.54 #	3.33 #	10.2 1 #	4.71 #	5.62 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1	<1 1	<1	<1
Benzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		3.15 #	3.29 #	2.65 #	7.7 1 #	3.6 #	4.74 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			SDG Ref	141017-59	141017-59	141017-59	141017-59	141017-59	141017-59
			Lab Sample No.(s)	10205711	10205708	10205199	10205709	10205198	10205197
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		1.89 #	1.84 #	1.25 #	4.53 1 #	2.05 #	2.44 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1	<1 1	<1	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1 1	<1	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1 1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		<1 #	8.85 #	<1 #	<1 1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend		Customer Sample R	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8
#	ISO17025 accredited.							
M	*m*CERTS accredited.							
aq	Aqueous / settled sample.	Depth (m)	.	.	.	.	.	.
diss.filt	Dissolved / filtered sample.	Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
tot.unfilt	Total / unfiltered sample.	Date Sampled	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014
*	Subcontracted test.	Sampled Time	.	.	.	.	.	.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery	Date Received	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
		SDG Ref	141017-59	141017-59	141017-59	141017-59	141017-59	141017-59
(F)	Trigger breach confirmed	Lab Sample No.(s)	10205711	10205708	10205199	10205709	10205198	10205197
1-5&+§@	Sample deviation (see appendix)	AGS Reference						

Component	LOD/Units	Method						
1,2,3-Trichlorobenzene	<1 µg/l	TM208	<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208	<1	<1	<1	<1 1	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH5/2	BH208	NACW203	NACW205	NACW212	NACW219
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			SDG Ref	141017-59	141017-59	141017-59	141017-59	141017-59	141017-59
			Lab Sample No.(s)	10205195	10205194	10205188	10205190	10205191	10205193
			AGS Reference						
Dibromofluoromethane**	%	TM208		110 1	109 1	107	109 1	109	108 1
Toluene-d8**	%	TM208		101 1	100 1	97.6	98.1 1	99.5	99.6 1
4-Bromofluorobenzene**	%	TM208		99.1 1	99.3 1	94.3	91.2 1	97.8	99 1
Dichlorodifluoromethane	<1 µg/l	TM208		<1 1	<1 1	<1	<1 1	<1	<1 1
Chloromethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Vinyl chloride	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Bromomethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Chloroethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Carbon disulphide	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Dichloromethane	<3 µg/l	TM208		<3 1 #	<3 1 #	<3 #	<3 1 #	<3 #	<3 1 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1 1	<1 1	<1	<1 1	<1	<1 1
Bromochloromethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Chloroform	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	7.31 #	<1 1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Carbontetrachloride	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1 1	<1 1	<1	<1 1	<1	<1 1
Benzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Trichloroethene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Dibromomethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Bromodichloromethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	5.07 #	<1 1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Toluene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH5/2	BH208	NACW203	NACW205	NACW212	NACW219
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			SDG Ref	141017-59	141017-59	141017-59	141017-59	141017-59	141017-59
			Lab Sample No.(s)	10205195	10205194	10205188	10205190	10205191	10205193
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Tetrachloroethene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Dibromochloromethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	2.99 #	<1 1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Chlorobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Ethylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
m,p-Xylene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
o-Xylene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Styrene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Bromoform	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Isopropylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1 1	<1 1	<1	<1 1	<1	<1 1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Bromobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Propylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
n-Butylbenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1 1	<1 1	<1	<1 1	<1	<1 1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1 1	<1 1	<1	<1 1	<1	<1 1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
Naphthalene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH5/2	BH208	NACW203	NACW205	NACW212	NACW219
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014	16/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			SDG Ref	141017-59	141017-59	141017-59	141017-59	141017-59	141017-59
			Lab Sample No.(s)	10205195	10205194	10205188	10205190	10205191	10205193
			AGS Reference						
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 1 #	<1 1 #	<1 #	<1 1 #	<1 #	<1 1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1 1	<1 1	<1	<1 1	<1	<1 1

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
Calulation				
TM022	Method 2540D, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part120 1981;BS EN 872	Determination of total suspended solids in waters		
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples		
TM045	MEWAM BOD5 2nd Ed.HMSO 1988 / Method 5210B, AWWA/APHA, 20th Ed., 1999; SCA Blue Book 130	Determination of BOD5 (ATU) Filtered by Oxygen Meter on liquids		
TM061	Method for the Determination of EPH,Massachusetts Dept.of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)		
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM107	ISO 6060-1989	Determination of Chemical Oxygen Demand using COD Dr Lange Kit		
TM120	Method 2510B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part 9:1970	Determination of Electrical Conductivity using a Conductivity Meter		
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS		
TM172	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	EPH in Waters		
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS		
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM186	Determination of Acidic Herbicides in Groundwater and Potable Water by LC/MSD Using Selective Ion Monitoring. Agilent Technologies Inc. Application Note 5988-5882EN.	The Determination of Acid Herbicides in Environmental Water Samples and Leachates by LC/MS QQQ.		
TM205		Determination of Phenols in Waste Waters using Solid Phase Extraction, Acetylation, Gas Chromatography and Mass Selective Detection		
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters		
TM228	US EPA Method 6010B	Determination of Major Cations in Water by iCap 6500 Duo ICP-OES		
TM245	By GC-FID	Determination of GRO by Headspace in waters		
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	10205194	10205711	10205708	10205199	10205709	10205198	10205197	10205195	10205188	10205190
Customer Sample Ref.	BH208	BH3/2	BH3/3	BH3/4	BH3/5	BH3/6	BH3/8	BH5/2	NACW203	NACW205
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Acid Herbicides (W)	04-Nov-2014	04-Nov-2014	04-Nov-2014	04-Nov-2014	04-Nov-2014	03-Nov-2014	04-Nov-2014	17-Nov-2014	04-Nov-2014	04-Nov-2014
Alkalinity as CaCO3	27-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	22-Oct-2014	22-Oct-2014	22-Oct-2014	27-Oct-2014
Alkalinity Filtered as CaCO3	24-Oct-2014	24-Oct-2014	24-Oct-2014	20-Oct-2014	24-Oct-2014	20-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	28-Oct-2014
Ammoniacal Nitrogen	24-Oct-2014	24-Oct-2014	24-Oct-2014	23-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014
Anions by Kone (w)	27-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	30-Oct-2014	27-Oct-2014	27-Oct-2014
BOD True Total	23-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014
COD Unfiltered	26-Oct-2014	26-Oct-2014	26-Oct-2014	26-Oct-2014	26-Oct-2014	26-Oct-2014	26-Oct-2014	26-Oct-2014	26-Oct-2014	26-Oct-2014
Conductivity (at 20 deg.C)	27-Oct-2014	21-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014
Dissolved Metals by ICP-MS	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	29-Oct-2014
EPH (DRO) (C10-C40) Aqueous (W)	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014
GRO by GC-FID (W)	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014
Ionic Balance	27-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	30-Oct-2014	27-Oct-2014	28-Oct-2014
Mercury Dissolved	23-Oct-2014	23-Oct-2014	23-Oct-2014	24-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014	24-Oct-2014	23-Oct-2014	23-Oct-2014
Metals by iCap-OES Dissolved (W)	22-Oct-2014	21-Oct-2014	21-Oct-2014	21-Oct-2014	21-Oct-2014	21-Oct-2014	22-Oct-2014	22-Oct-2014	22-Oct-2014	22-Oct-2014
Nitrite by Kone (w)	18-Oct-2014	21-Oct-2014	21-Oct-2014	21-Oct-2014	21-Oct-2014	21-Oct-2014	18-Oct-2014	18-Oct-2014	18-Oct-2014	18-Oct-2014
pH Value	22-Oct-2014	24-Oct-2014	21-Oct-2014	28-Oct-2014	24-Oct-2014	24-Oct-2014	22-Oct-2014	22-Oct-2014	22-Oct-2014	22-Oct-2014
Phenols by ms (w)	31-Oct-2014	31-Oct-2014	31-Oct-2014	22-Oct-2014	31-Oct-2014	31-Oct-2014	31-Oct-2014	22-Oct-2014	31-Oct-2014	31-Oct-2014
Suspended Solids	27-Oct-2014	21-Oct-2014	21-Oct-2014	21-Oct-2014	21-Oct-2014	21-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014
SVOC MS (W) - Aqueous	27-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014
Total EPH (aq)	31-Oct-2014	31-Oct-2014	31-Oct-2014	30-Oct-2014	31-Oct-2014	30-Oct-2014	30-Oct-2014	31-Oct-2014	30-Oct-2014	30-Oct-2014
Total Organic and Inorganic Carbon	24-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	21-Oct-2014	24-Oct-2014	24-Oct-2014
VOC MS (W)	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014

Lab Sample No(s)	10205191	10205193
Customer Sample Ref.	NACW212	NACW219
AGS Ref.		
Depth		
Type	LIQUID	LIQUID
Acid Herbicides (W)	04-Nov-2014	04-Nov-2014
Alkalinity as CaCO3	27-Oct-2014	27-Oct-2014
Alkalinity Filtered as CaCO3	24-Oct-2014	24-Oct-2014
Ammoniacal Nitrogen	24-Oct-2014	24-Oct-2014
Anions by Kone (w)	27-Oct-2014	29-Oct-2014
BOD True Total	23-Oct-2014	23-Oct-2014
COD Unfiltered	26-Oct-2014	26-Oct-2014
Conductivity (at 20 deg.C)	24-Oct-2014	24-Oct-2014
Dissolved Metals by ICP-MS	28-Oct-2014	28-Oct-2014
EPH (DRO) (C10-C40) Aqueous (W)	28-Oct-2014	28-Oct-2014
GRO by GC-FID (W)	30-Oct-2014	30-Oct-2014
Ionic Balance	27-Oct-2014	29-Oct-2014
Mercury Dissolved	23-Oct-2014	23-Oct-2014
Metals by iCap-OES Dissolved (W)	22-Oct-2014	21-Oct-2014
Nitrite by Kone (w)	18-Oct-2014	18-Oct-2014
pH Value	22-Oct-2014	20-Oct-2014
Phenols by ms (w)	31-Oct-2014	31-Oct-2014
Suspended Solids	27-Oct-2014	21-Oct-2014
SVOC MS (W) - Aqueous	27-Oct-2014	27-Oct-2014
Total EPH (aq)	30-Oct-2014	30-Oct-2014
Total Organic and Inorganic Carbon	24-Oct-2014	24-Oct-2014
VOC MS (W)	30-Oct-2014	30-Oct-2014

CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

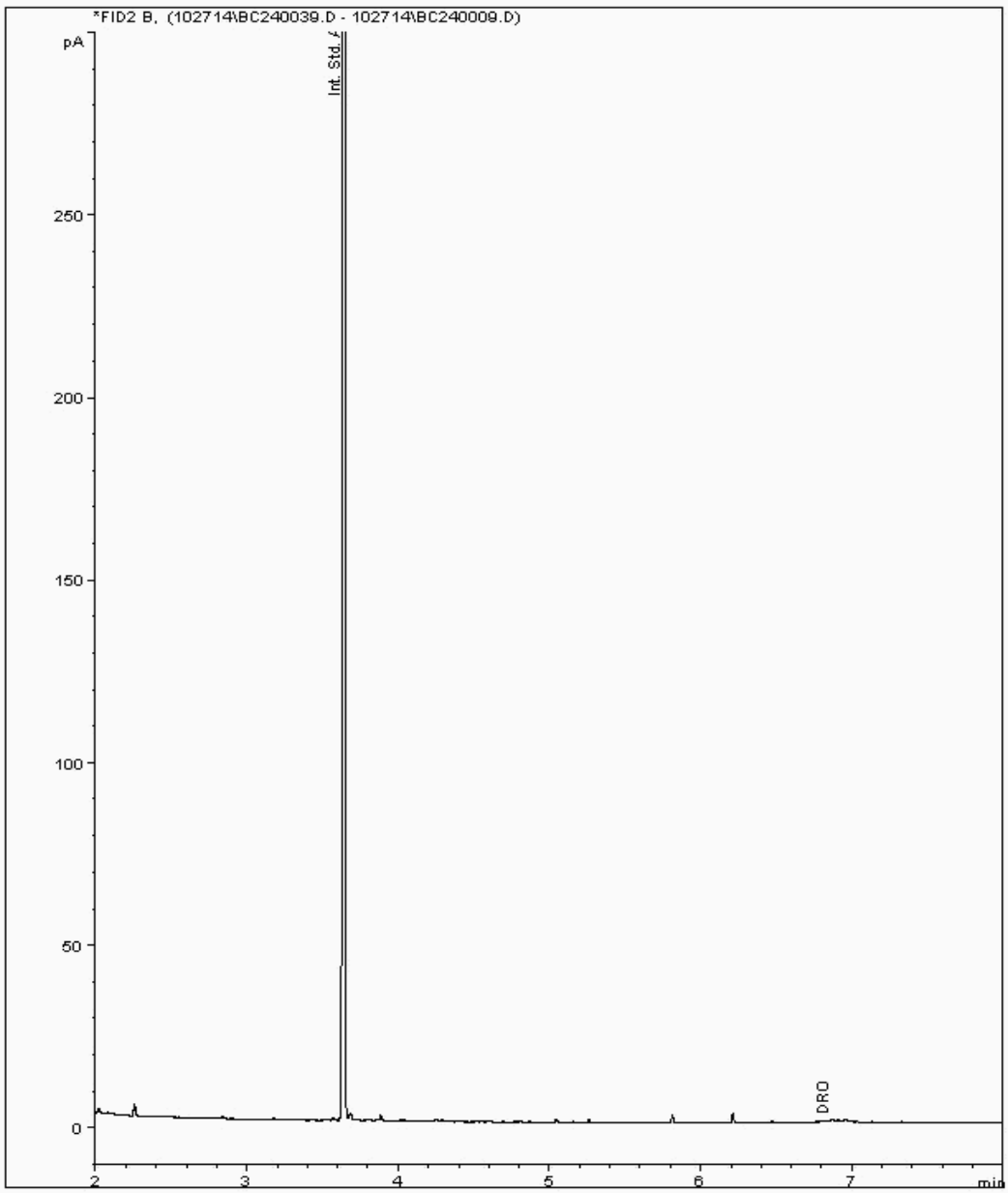
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10210196
Sample ID : BH3/4

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9709490-10210196
Date Acquired : 28/10/2014 04:45:03 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

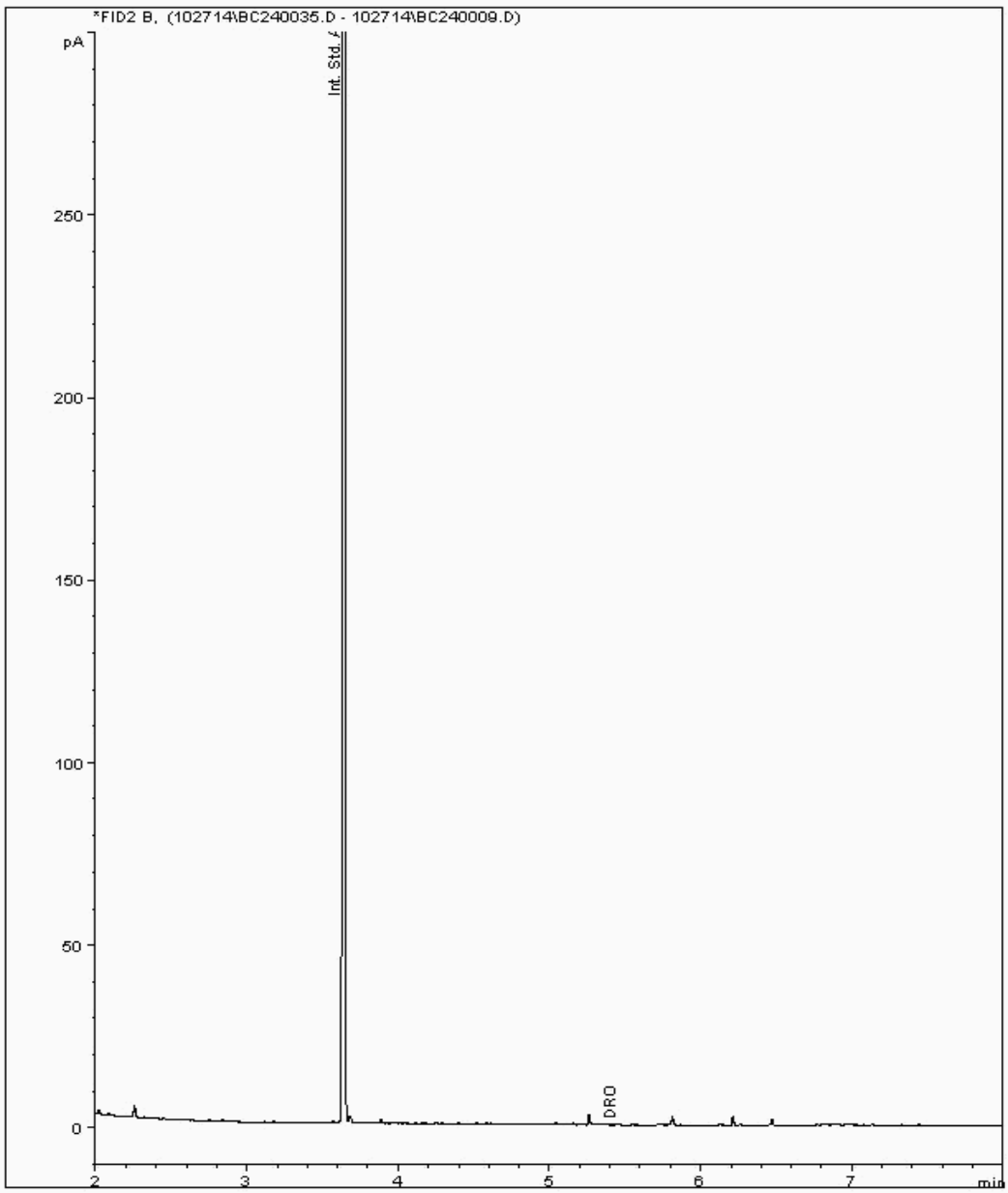
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10210253
Sample ID : BH5/2

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9709451-10210253
Date Acquired : 28/10/2014 03:16:51 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

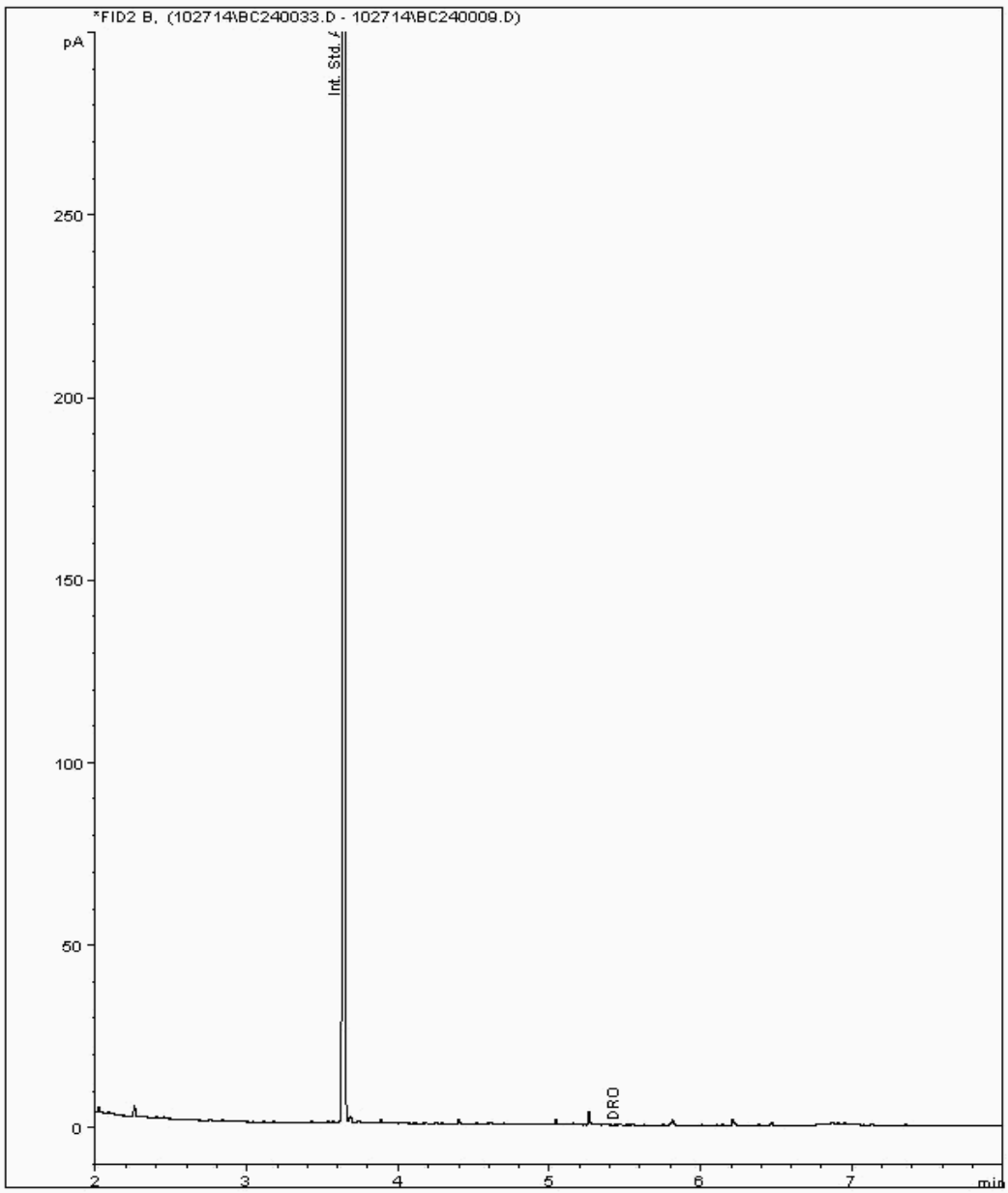
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10226051
Sample ID : BH3/3

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9709503-10226051
Date Acquired : 28/10/2014 02:32:43 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

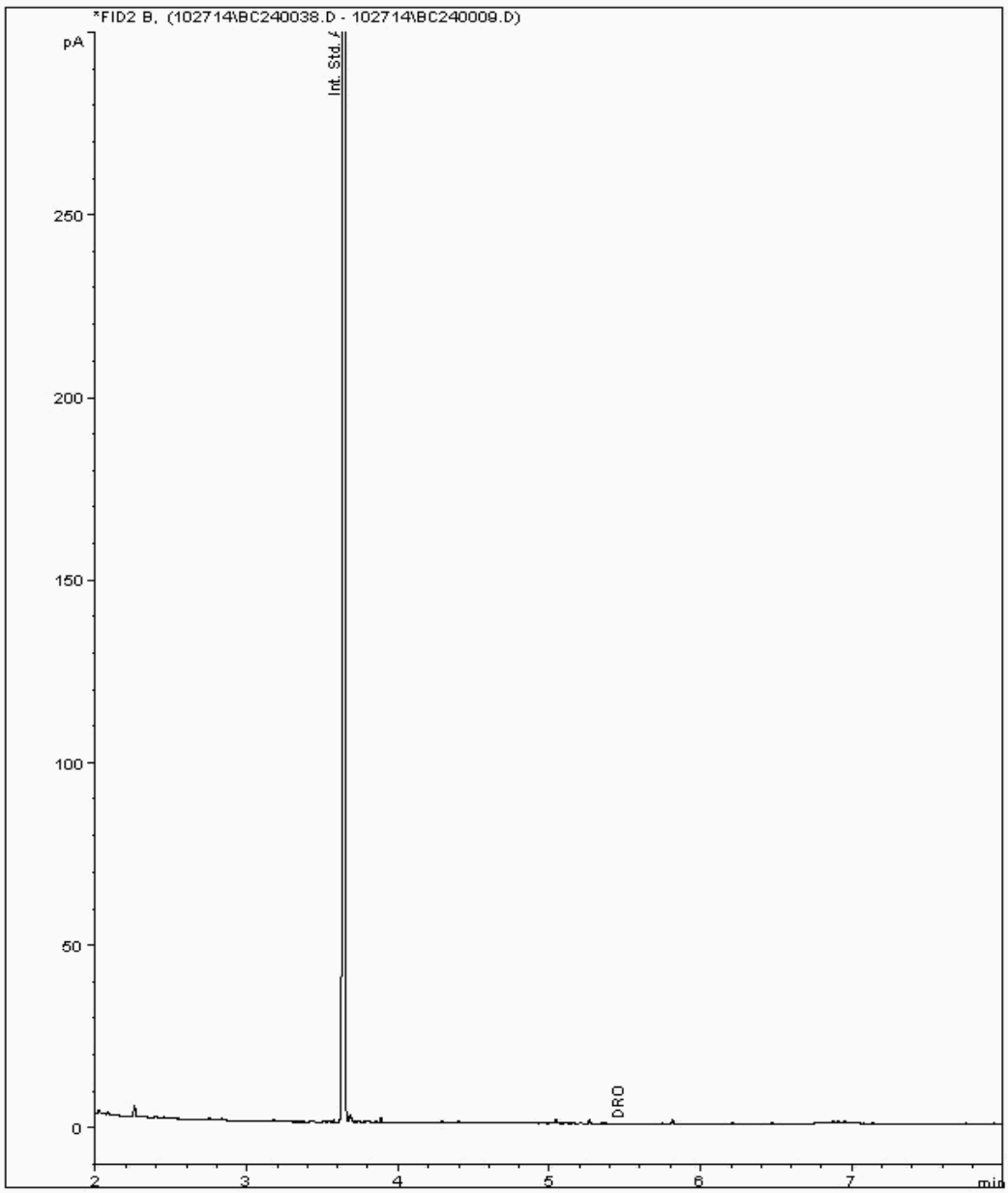
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10226117
Sample ID : BH3/5

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9709516-10226117
Date Acquired : 28/10/2014 04:23:03 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

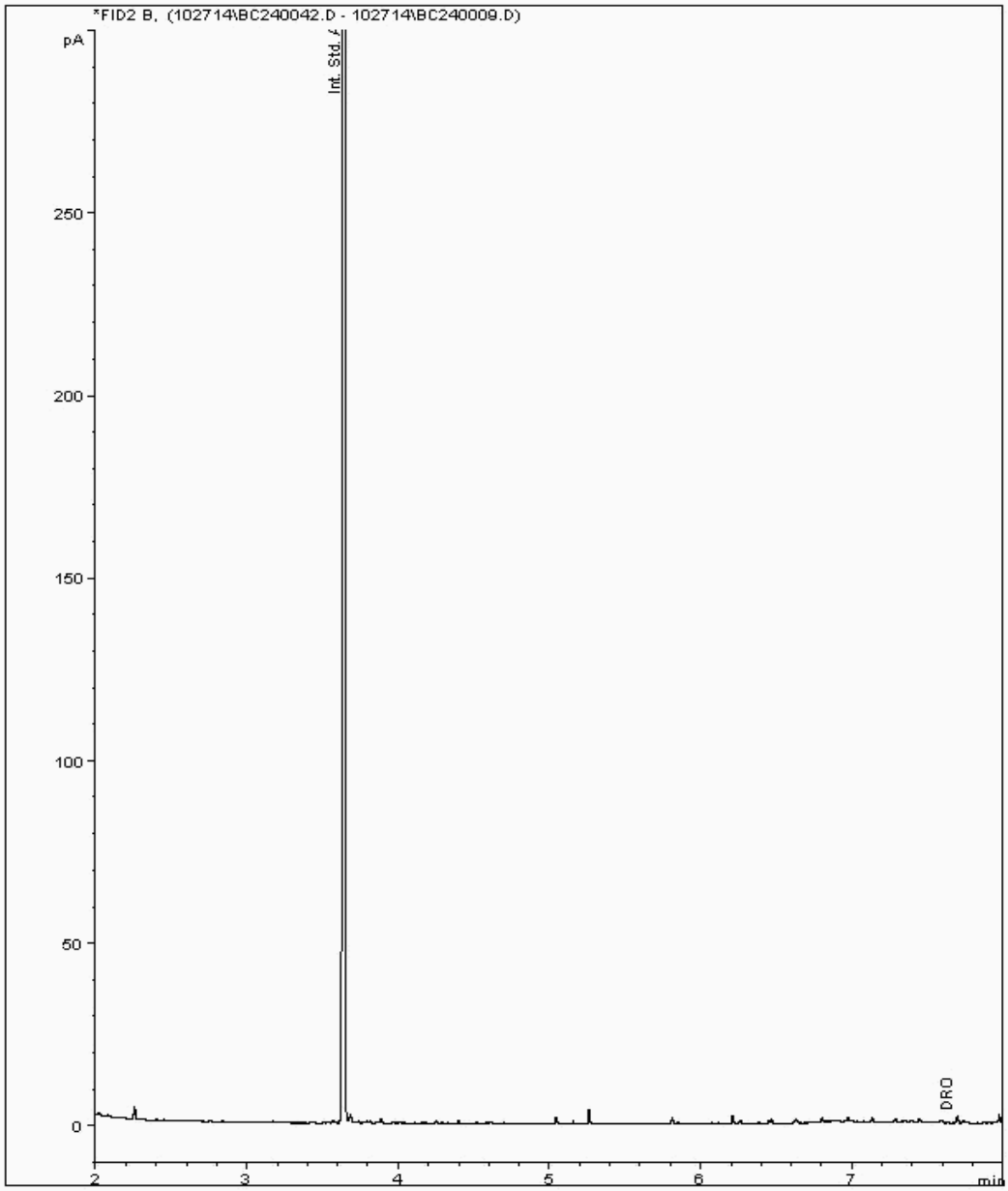
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10226150
Sample ID : BH3/2

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9709529-10226150
Date Acquired : 28/10/2014 05:51:16 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

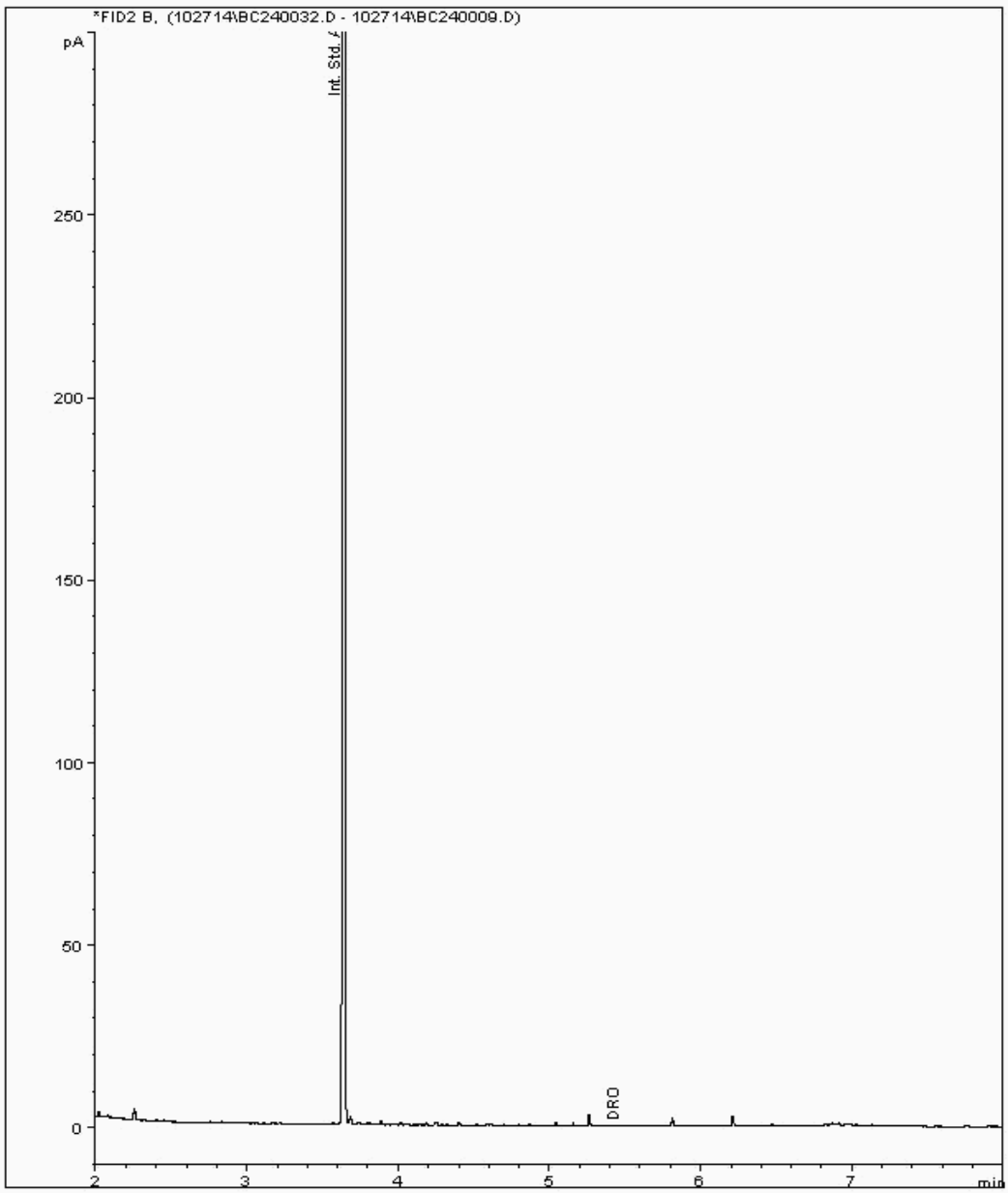
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10226248
Sample ID : NACW212

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9709403-10226248
Date Acquired : 28/10/2014 02:10:44 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

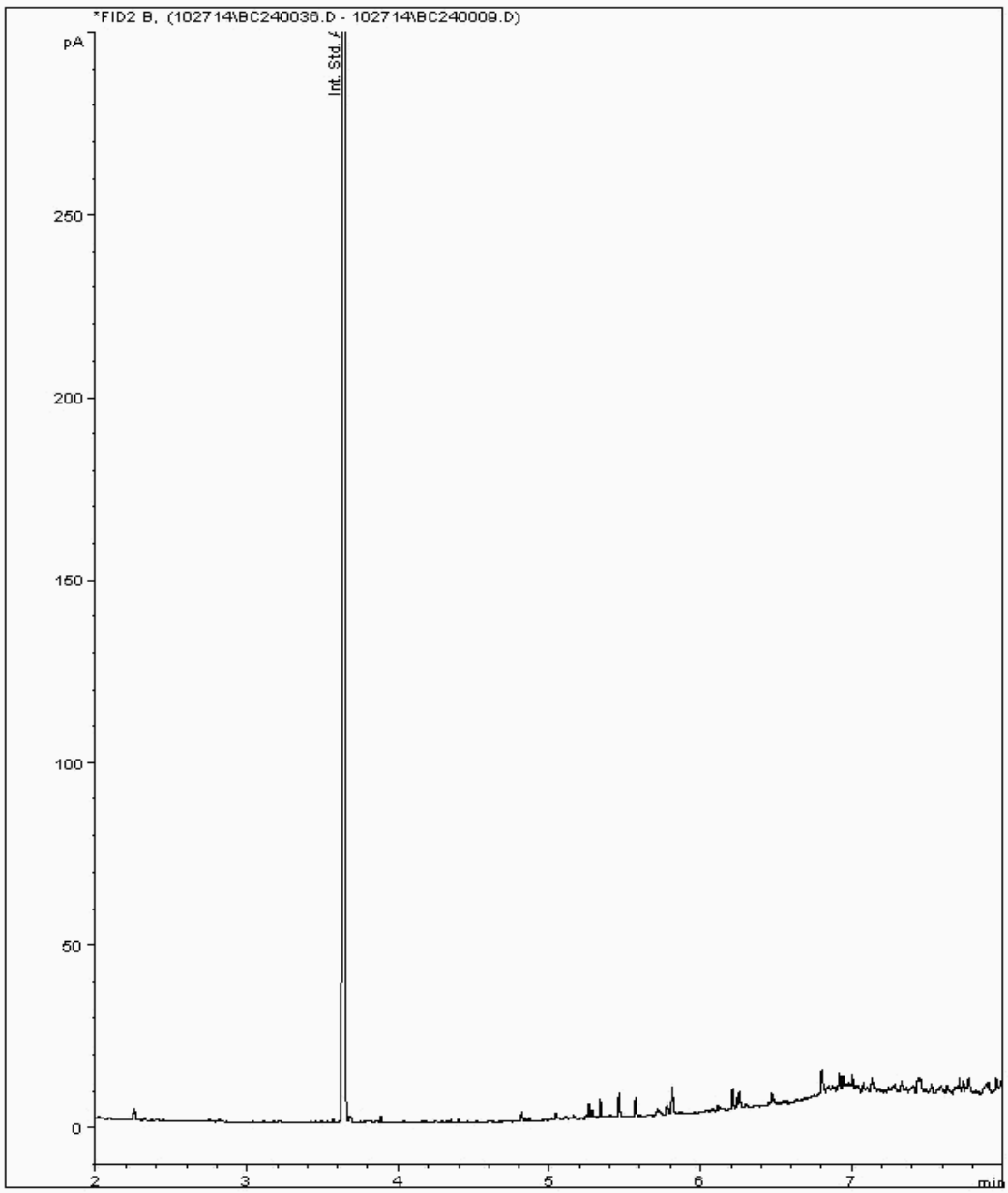
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10226307
Sample ID : NACW205

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9709390-10226307
Date Acquired : 28/10/2014 03:38:52 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

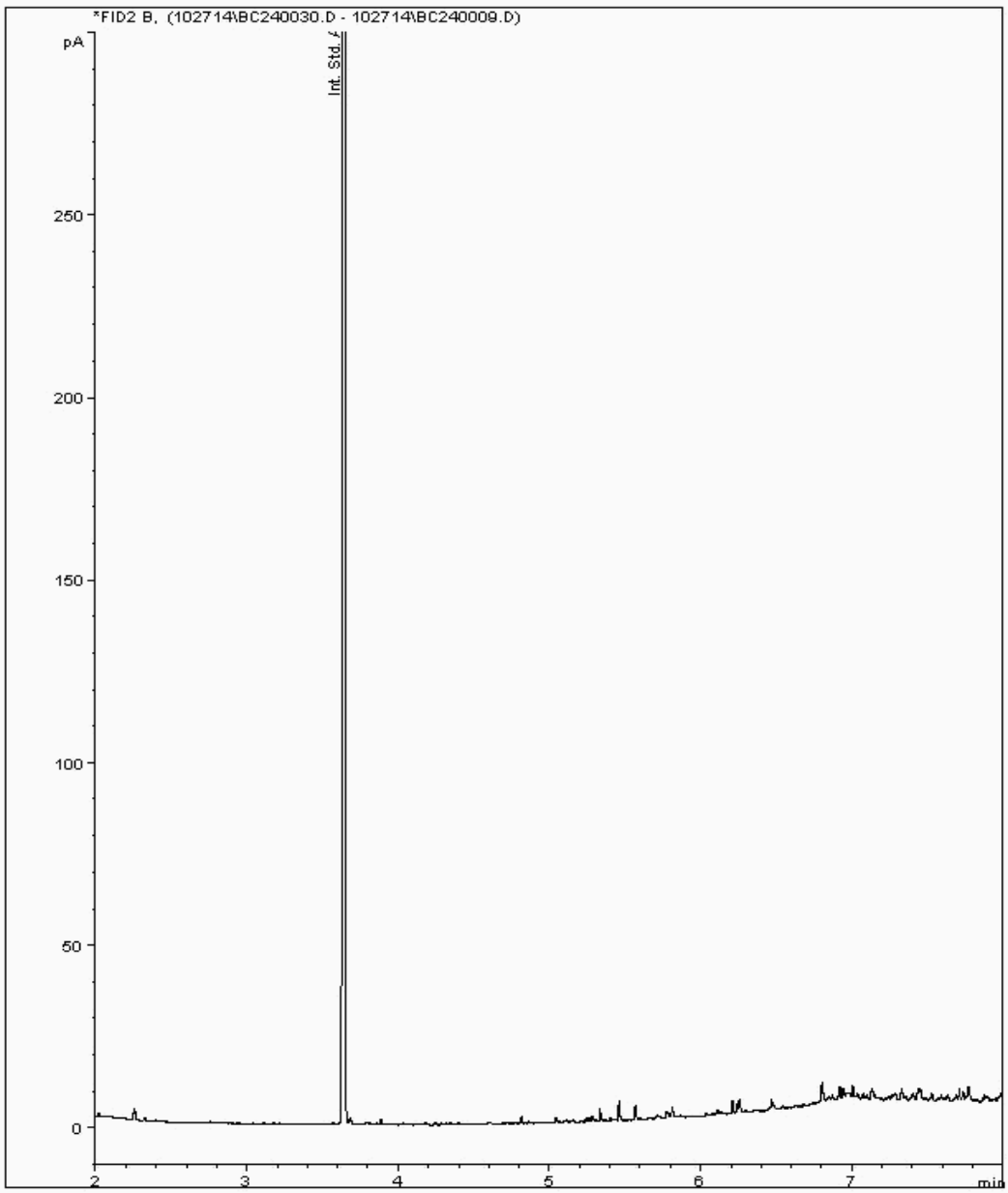
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10226395
Sample ID : NACW203

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9709377-10226395
Date Acquired : 28/10/2014 01:26:23 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

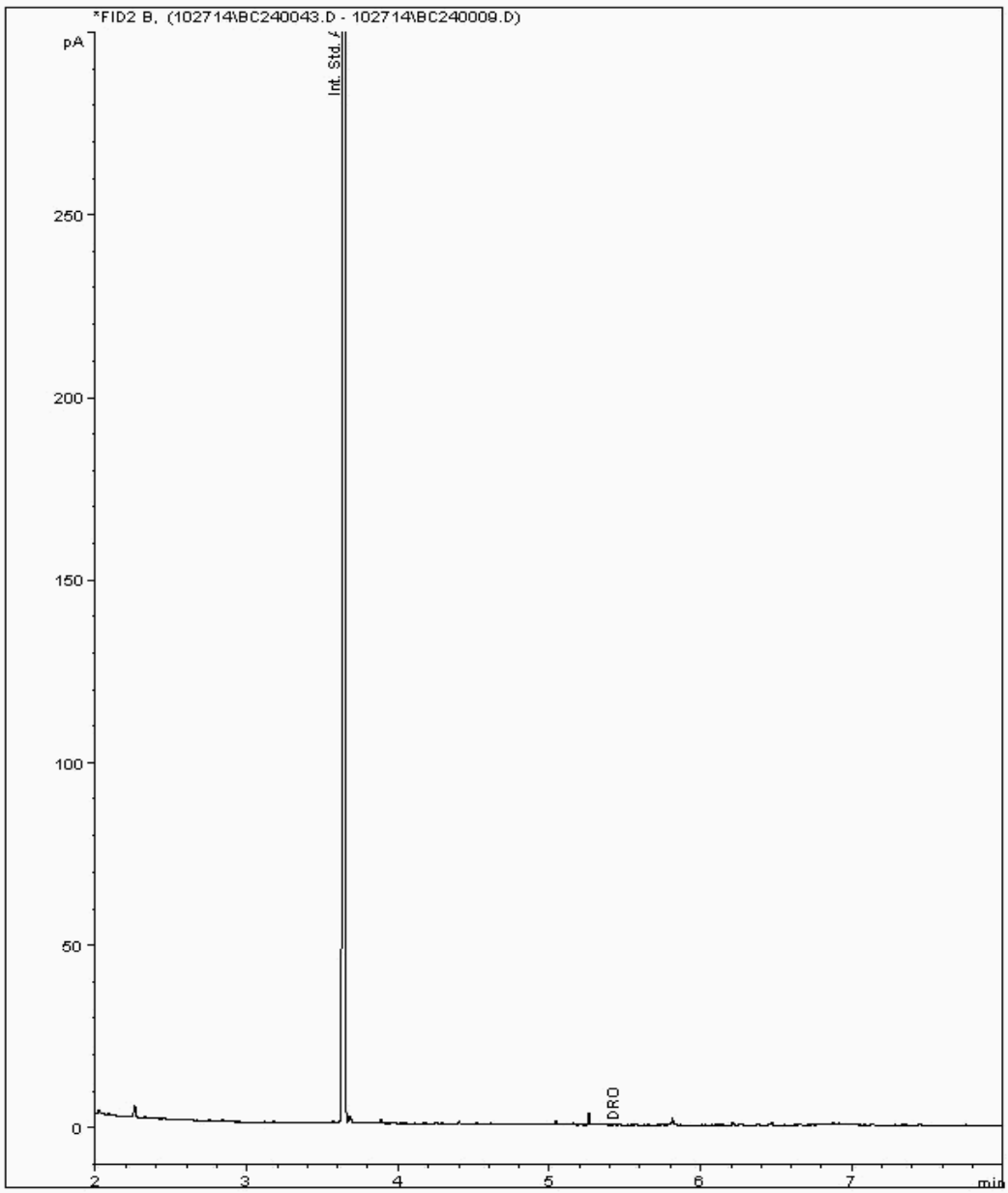
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10226685
Sample ID : BH208

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9709438-10226685
Date Acquired : 28/10/2014 06:13:27 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

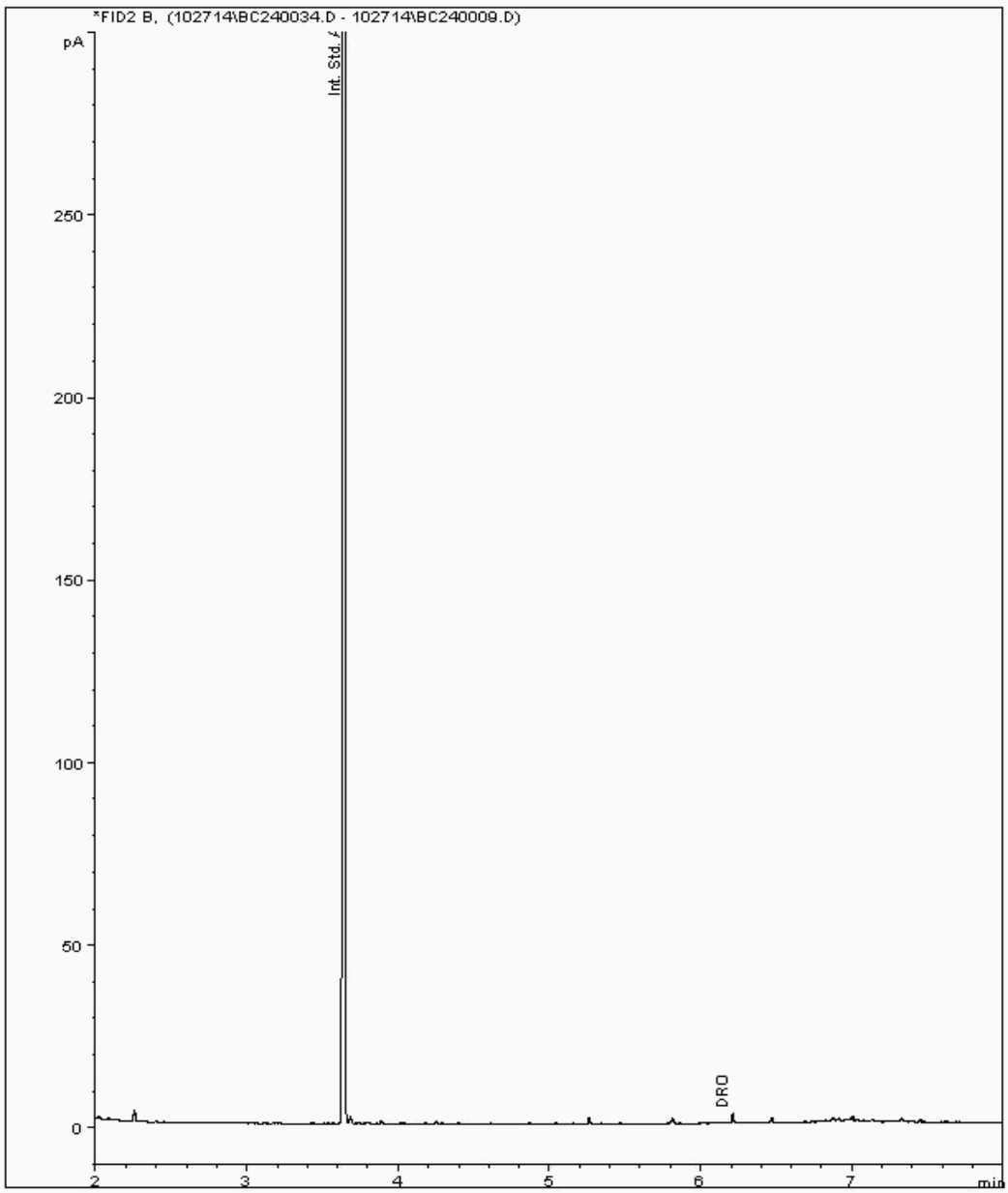
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10226719
Sample ID : BH3/8

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9709464-10226719
Date Acquired : 28/10/2014 02:54:52 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

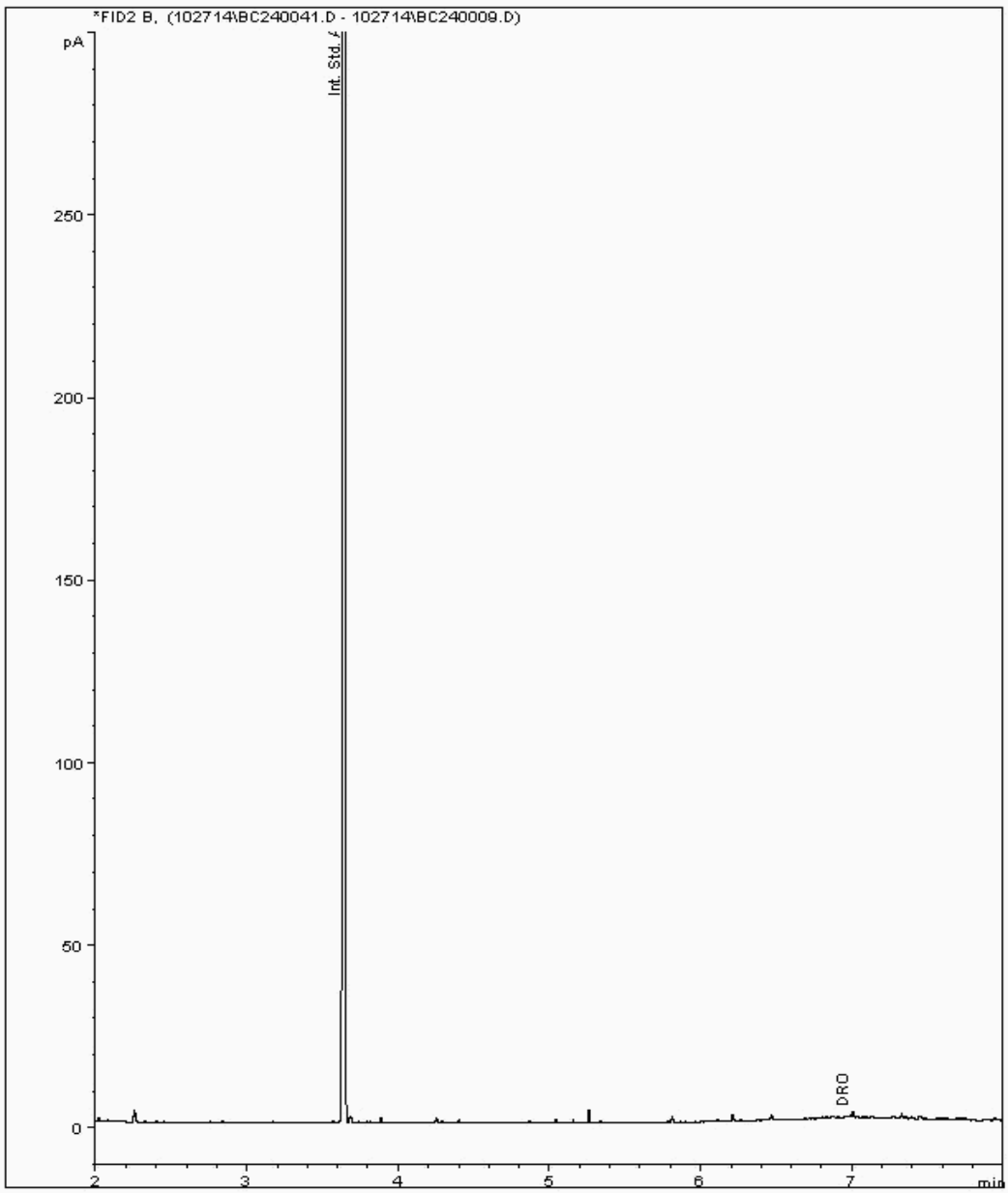
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10226768
Sample ID : BH3/6

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9709477-10226768
Date Acquired : 28/10/2014 05:29:15 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

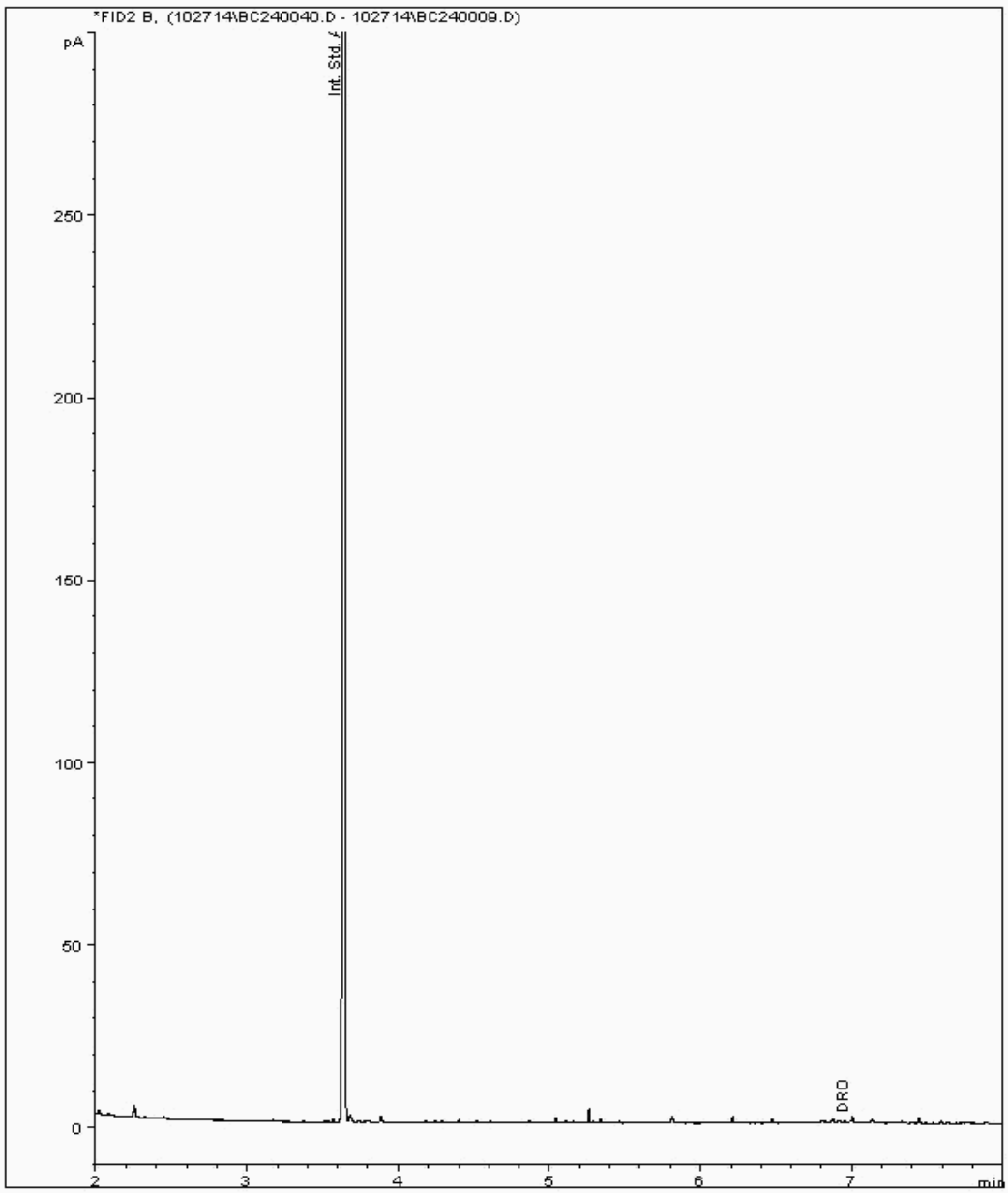
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10226789
Sample ID : NACW219

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9709421-10226789
Date Acquired : 28/10/2014 05:07:17 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

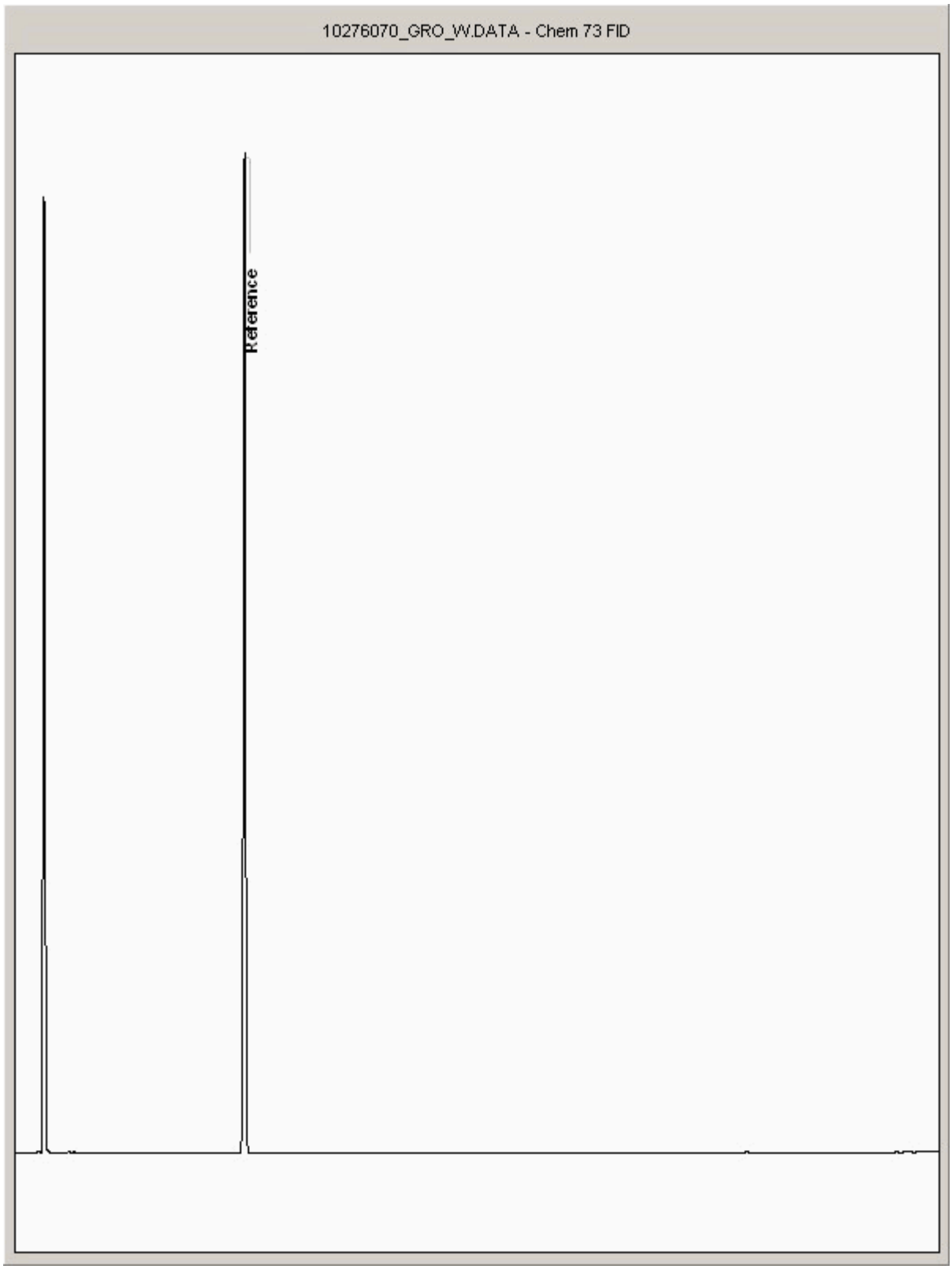
SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10276033
Sample ID : NACW219

Depth :



CERTIFICATE OF ANALYSIS

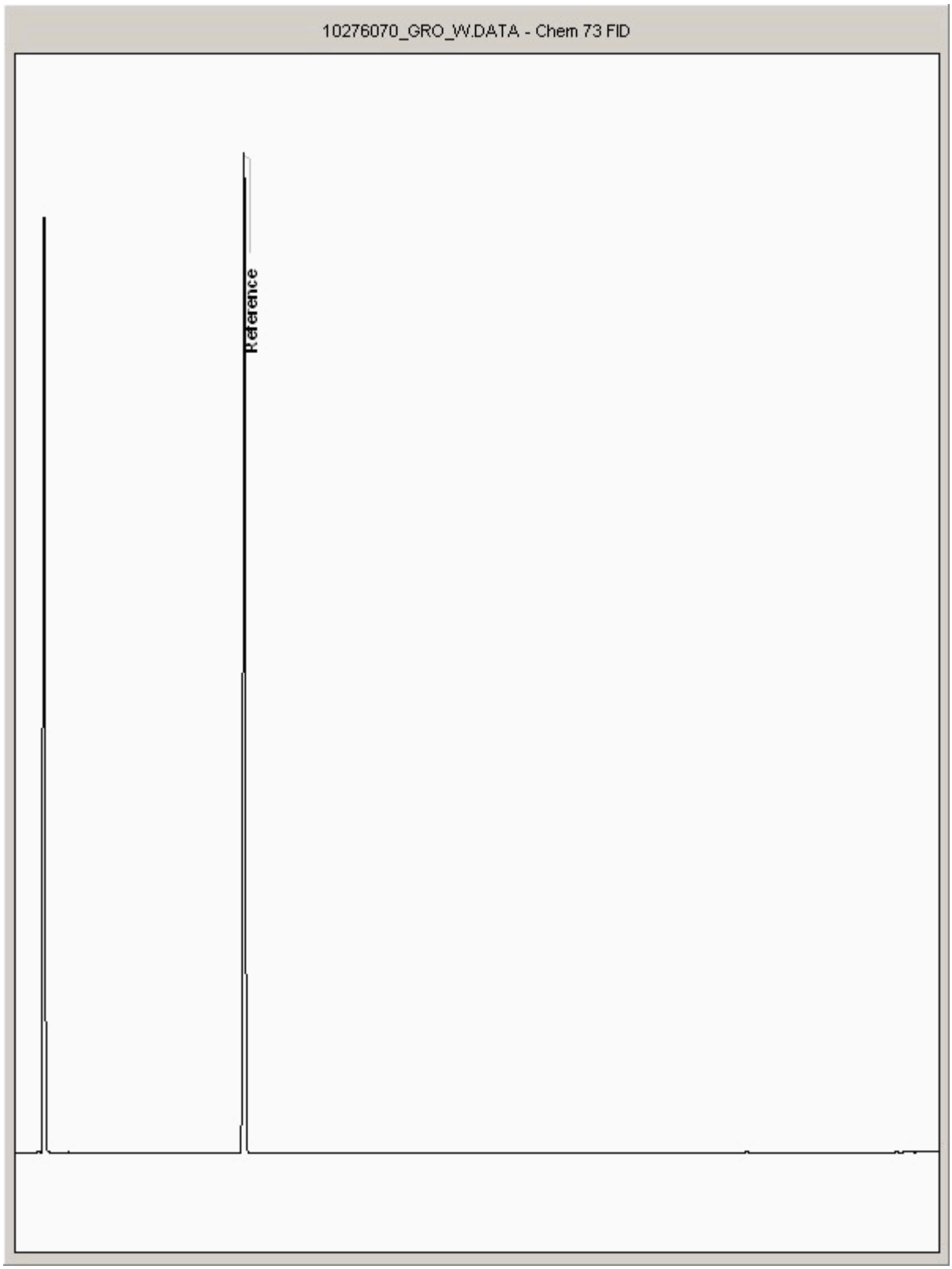
SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10276070
Sample ID : BH3/8

Depth :



CERTIFICATE OF ANALYSIS

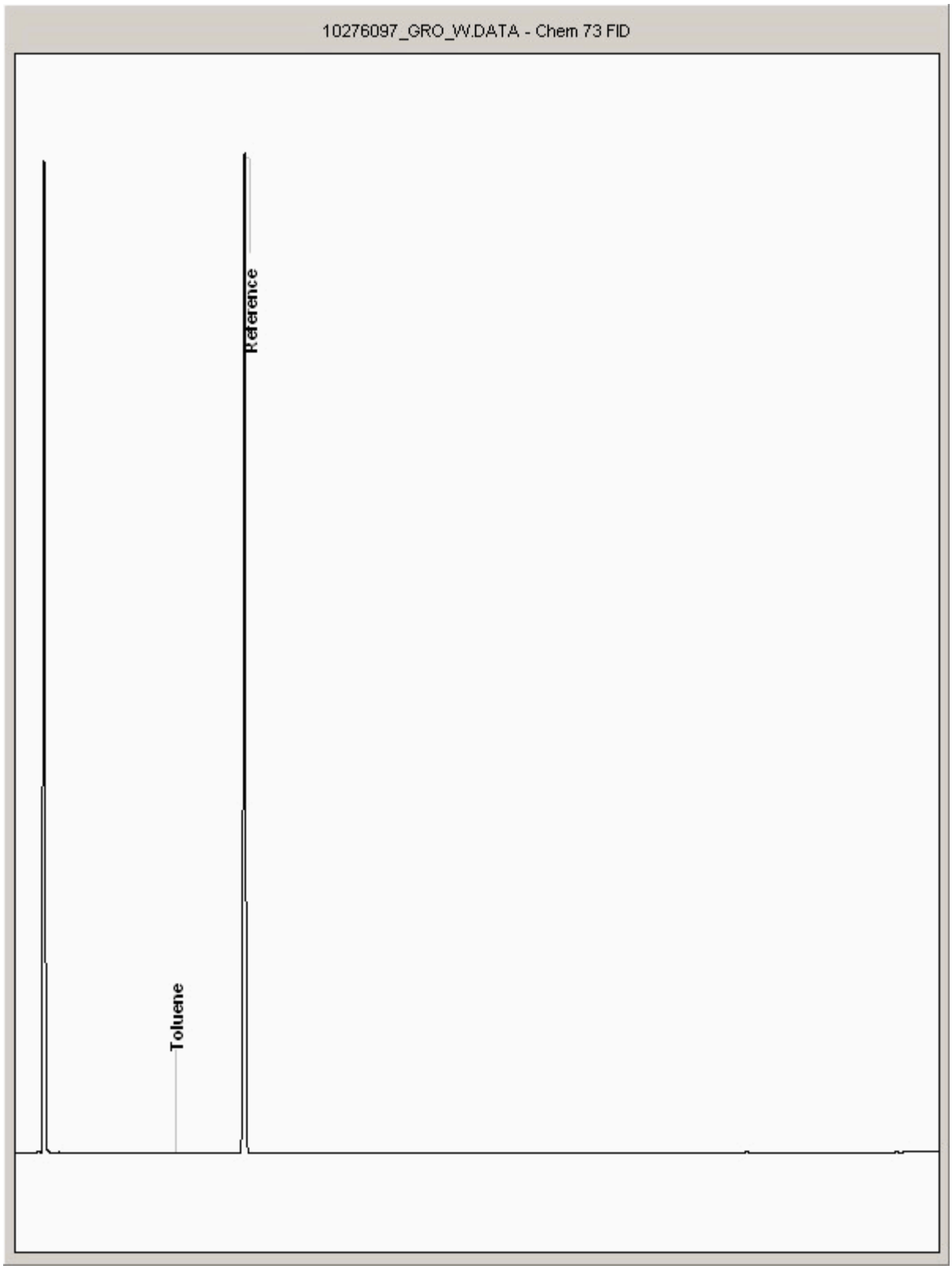
SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10276097
Sample ID : NACW205

Depth :



CERTIFICATE OF ANALYSIS

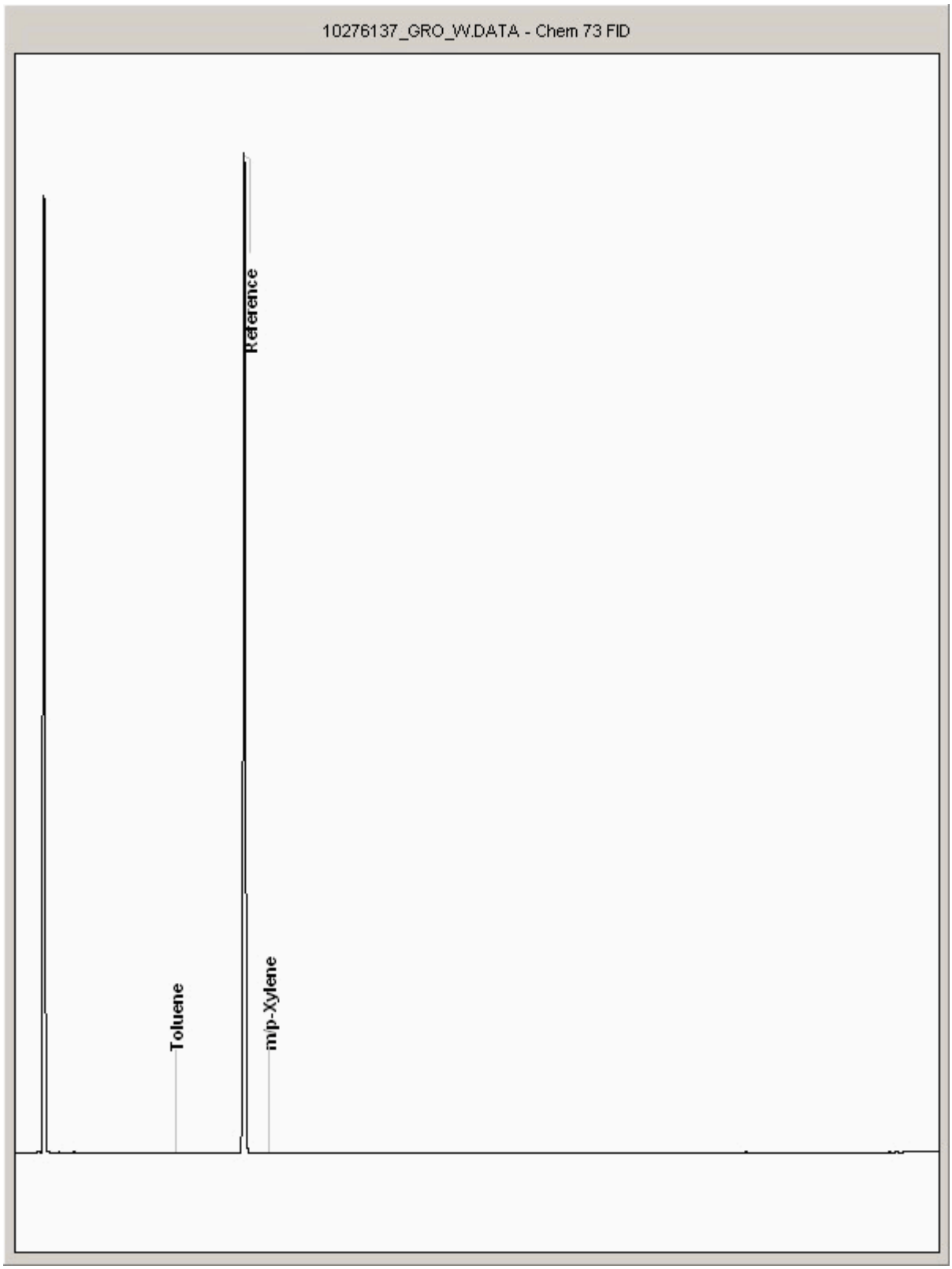
SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10276137
Sample ID : NACW203

Depth :



CERTIFICATE OF ANALYSIS

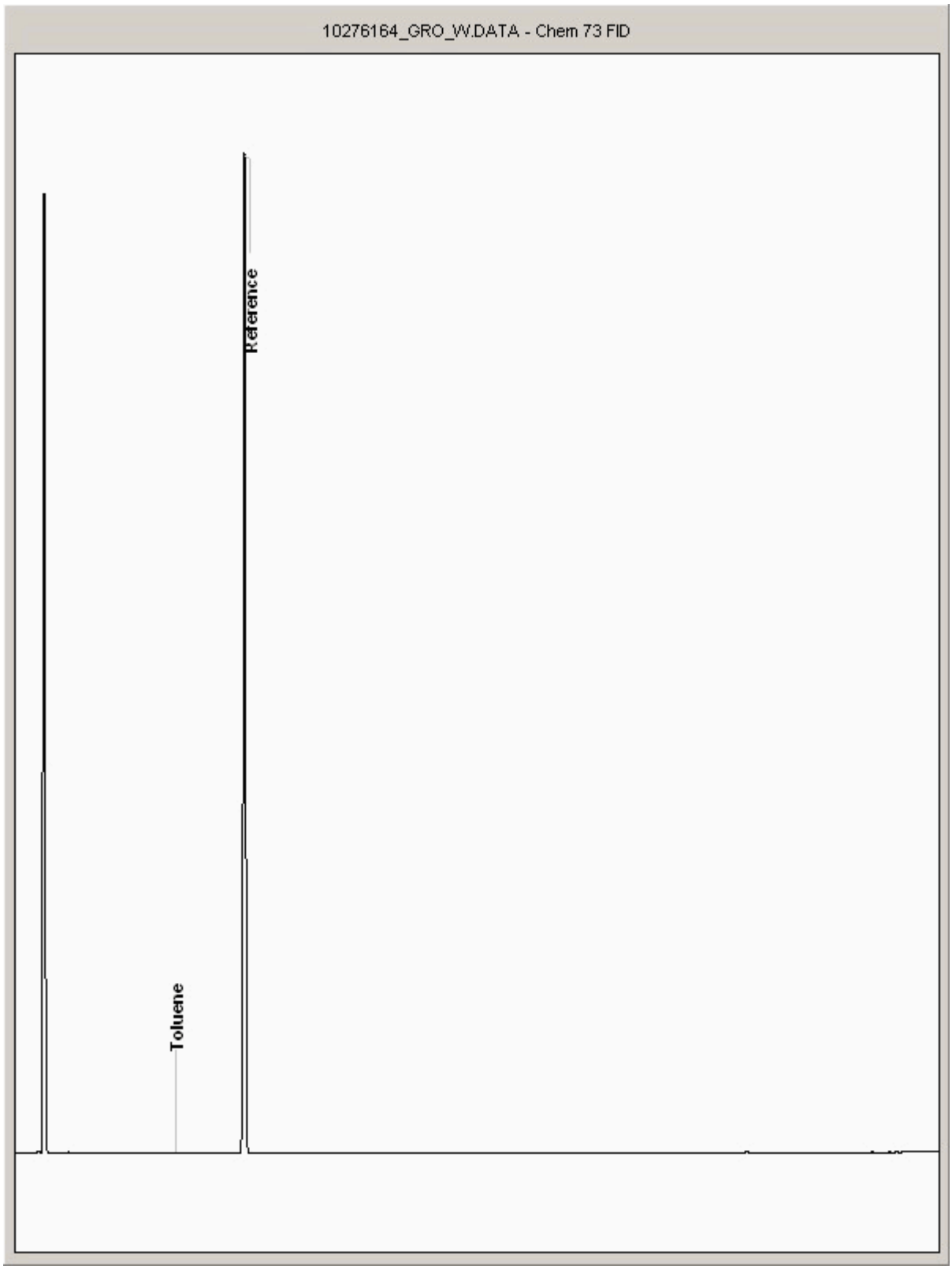
SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10276164
Sample ID : BH3/6

Depth :



CERTIFICATE OF ANALYSIS

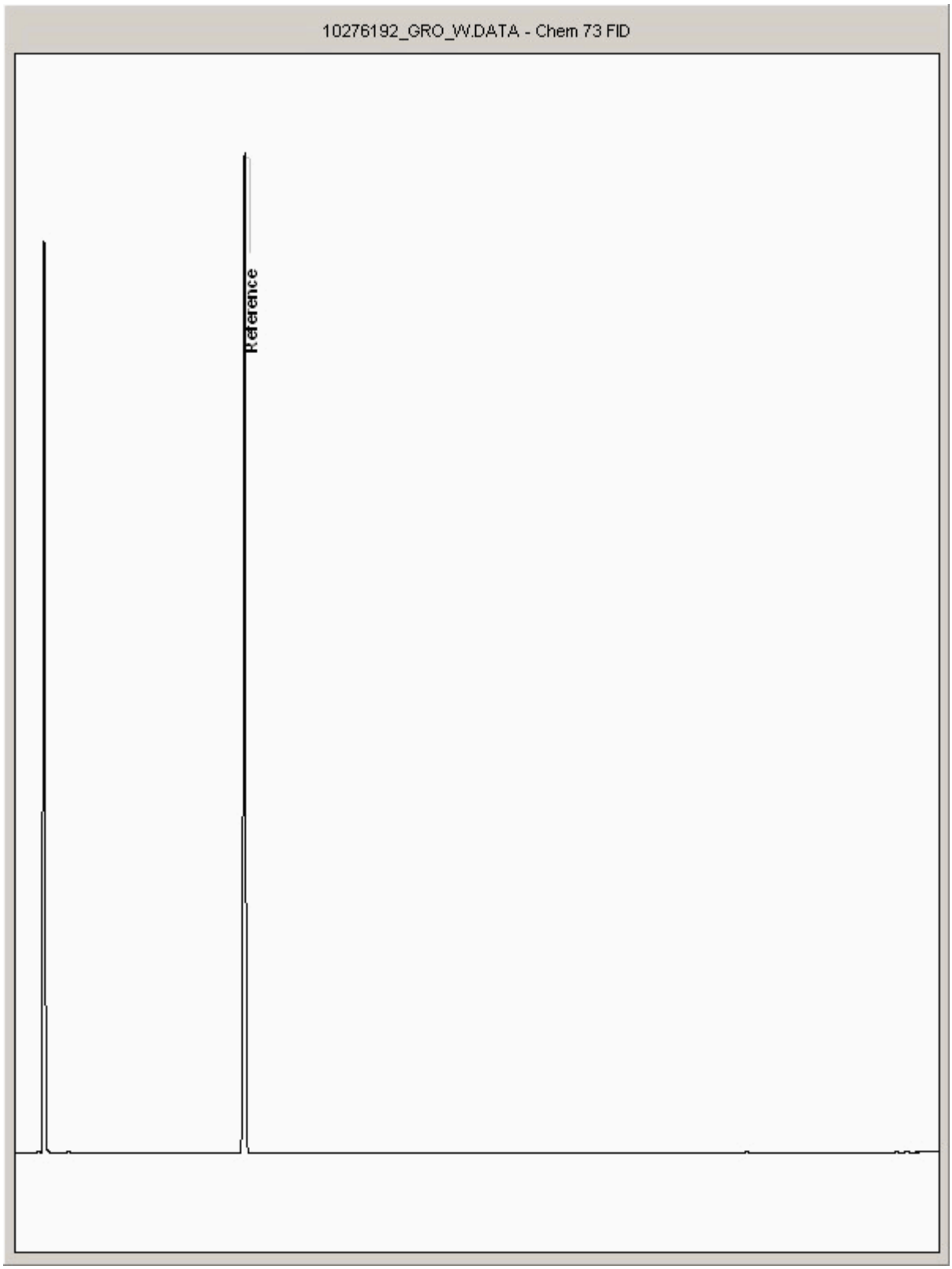
SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10276192
Sample ID : NACW212

Depth :



CERTIFICATE OF ANALYSIS

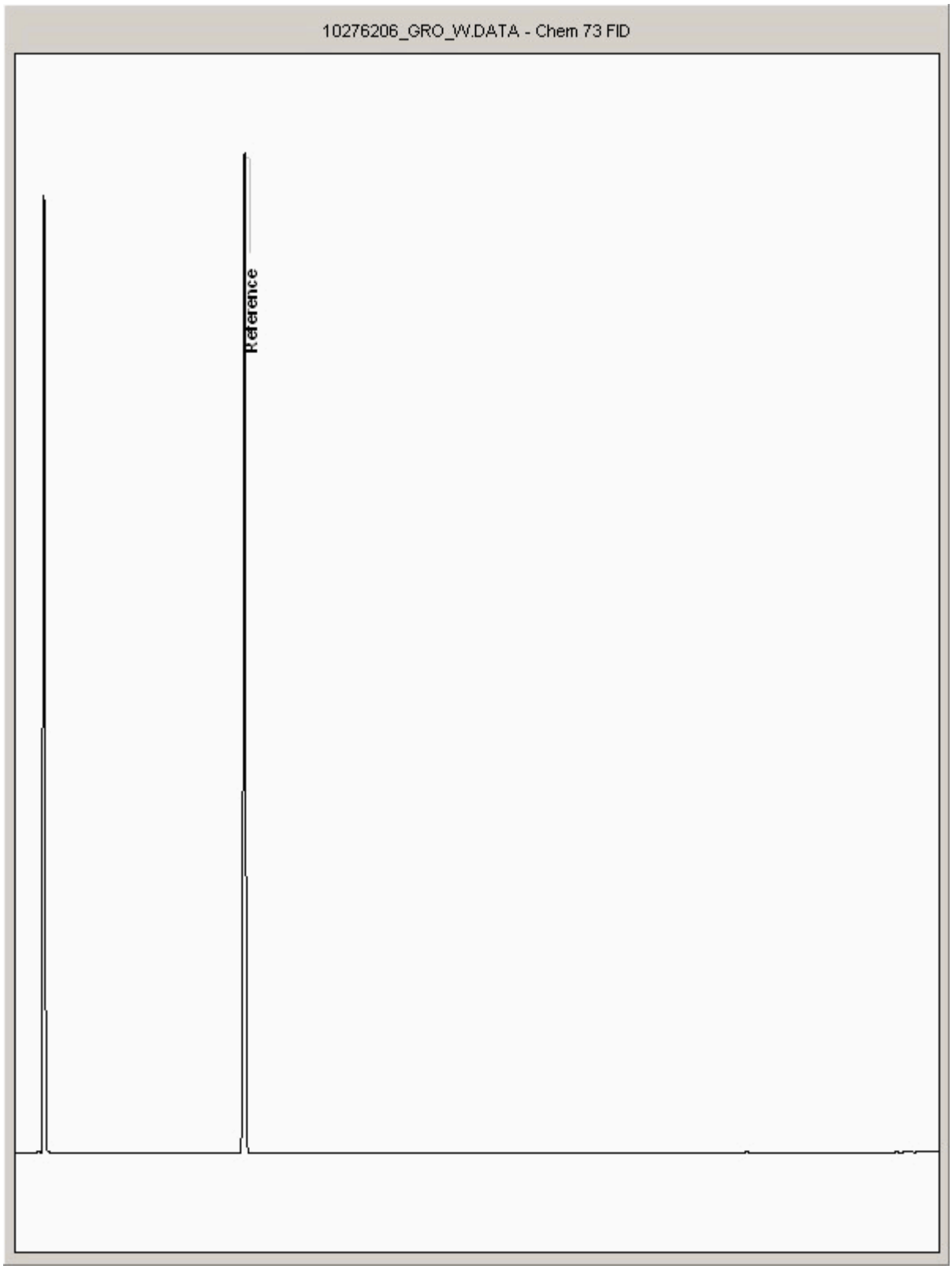
SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10276206
Sample ID : BH3/4

Depth :



CERTIFICATE OF ANALYSIS

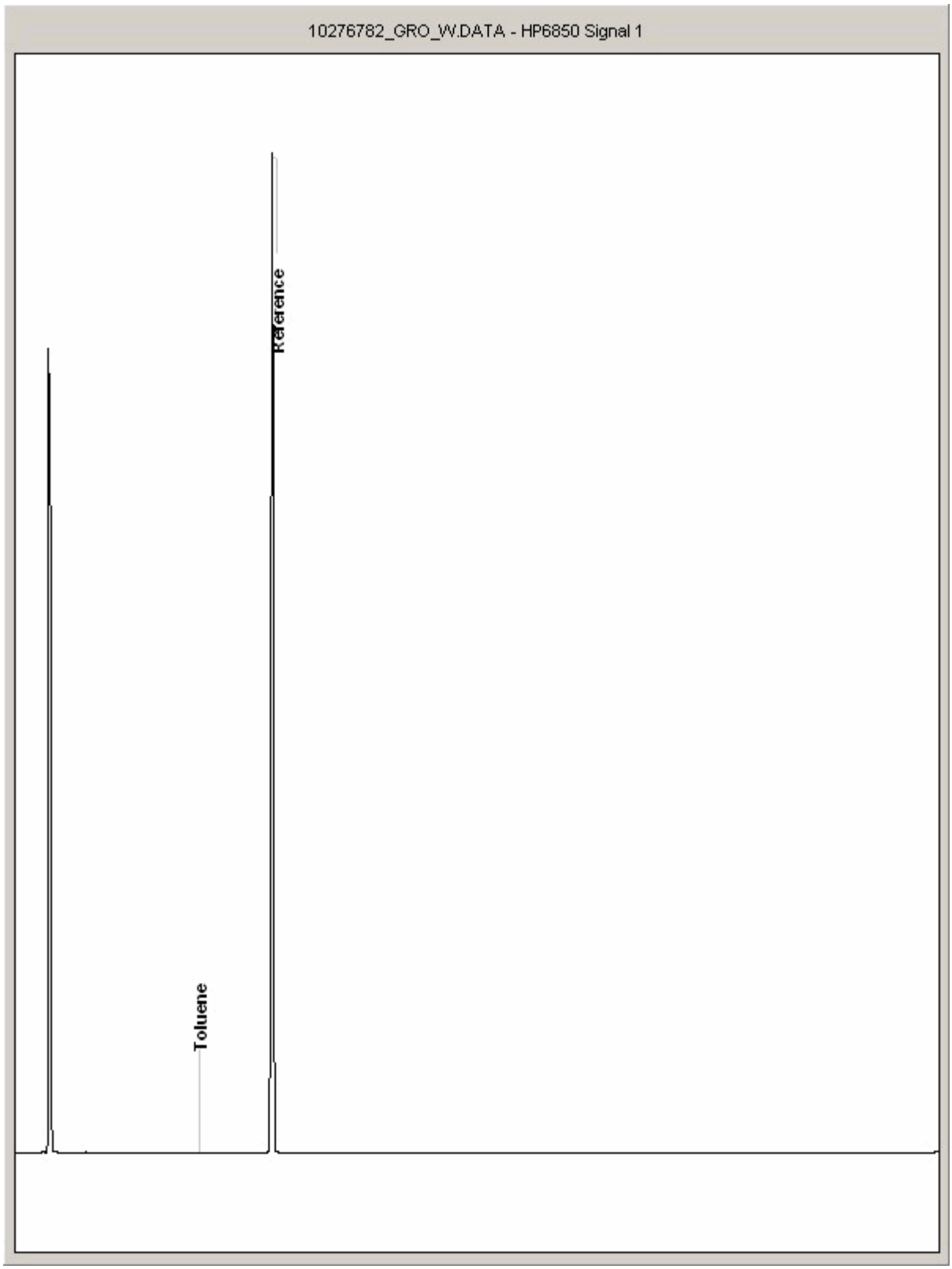
SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10276782
Sample ID : BH5/2

Depth :



CERTIFICATE OF ANALYSIS

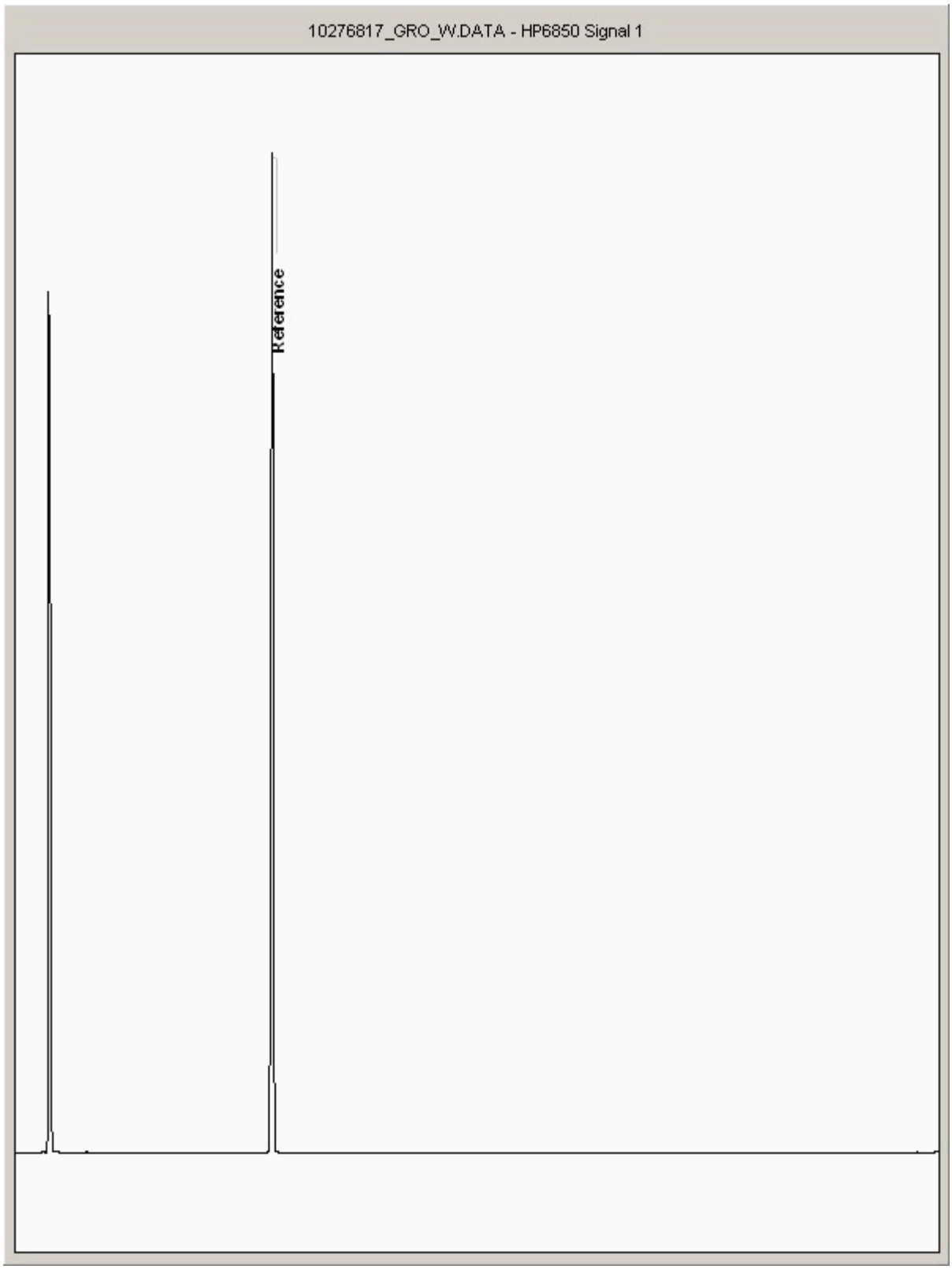
SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10276817
Sample ID : BH208

Depth :



CERTIFICATE OF ANALYSIS

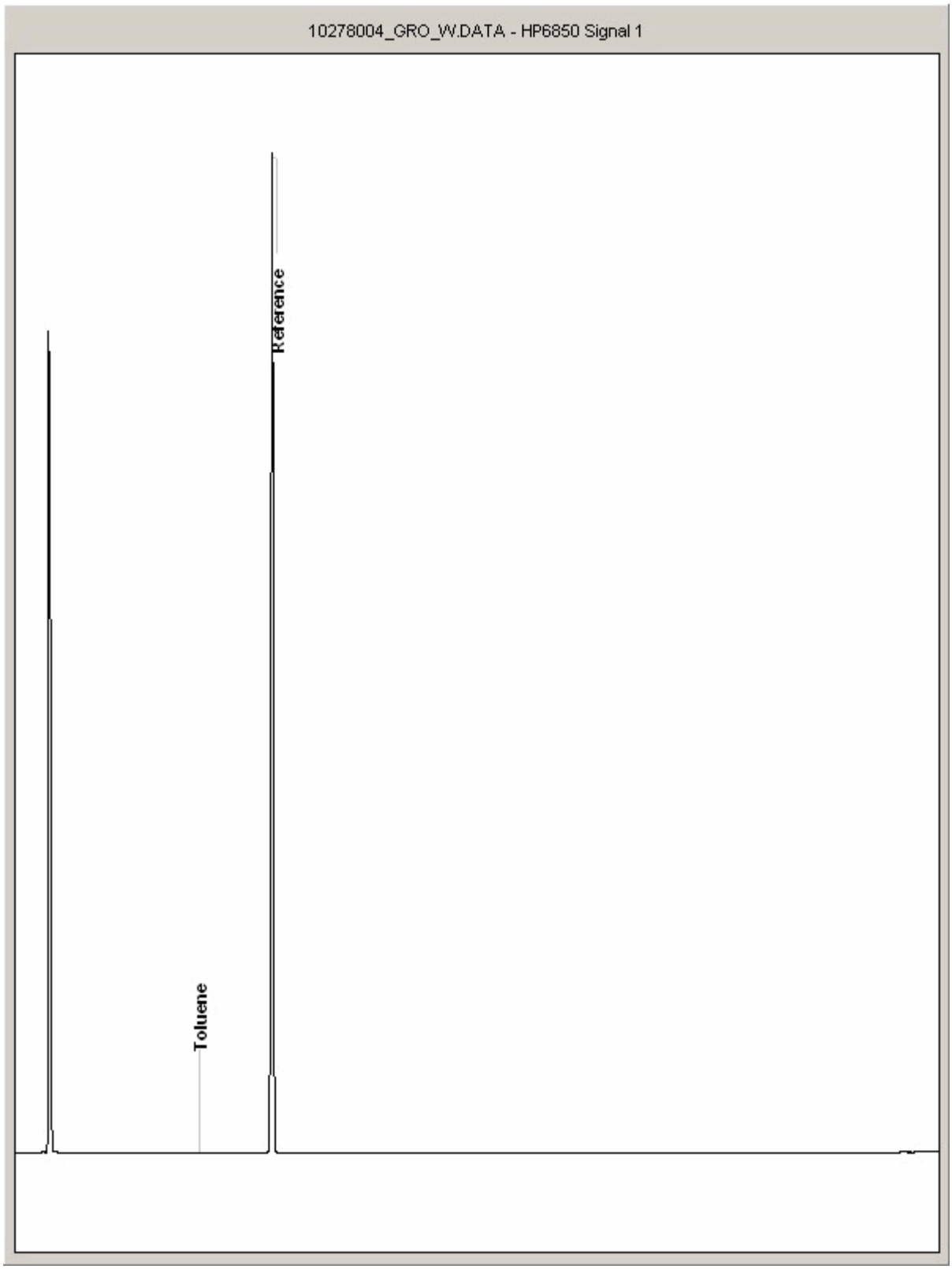
SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10278004
Sample ID : BH3/3

Depth :



CERTIFICATE OF ANALYSIS

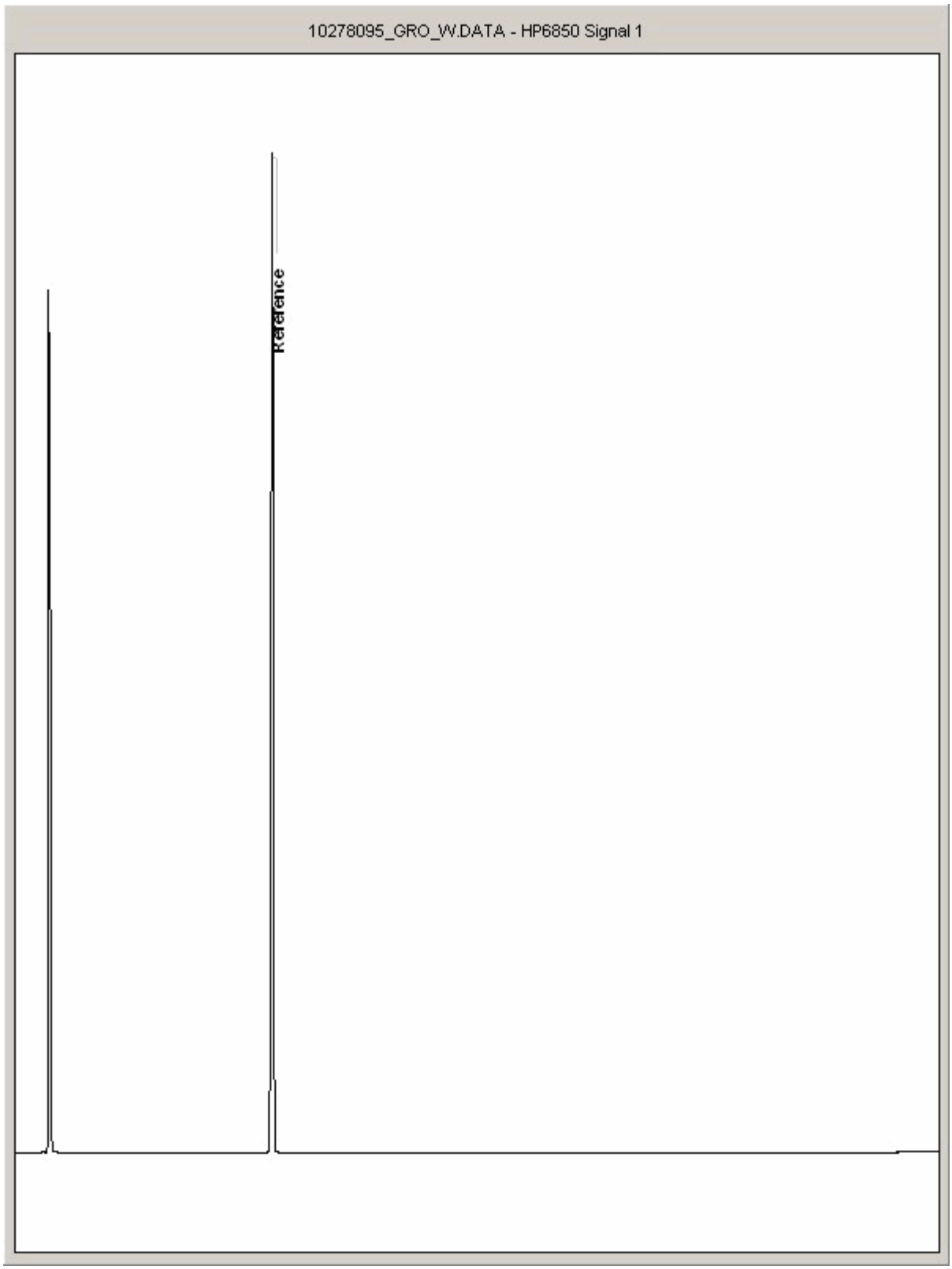
SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10278095
Sample ID : BH3/5

Depth :



CERTIFICATE OF ANALYSIS

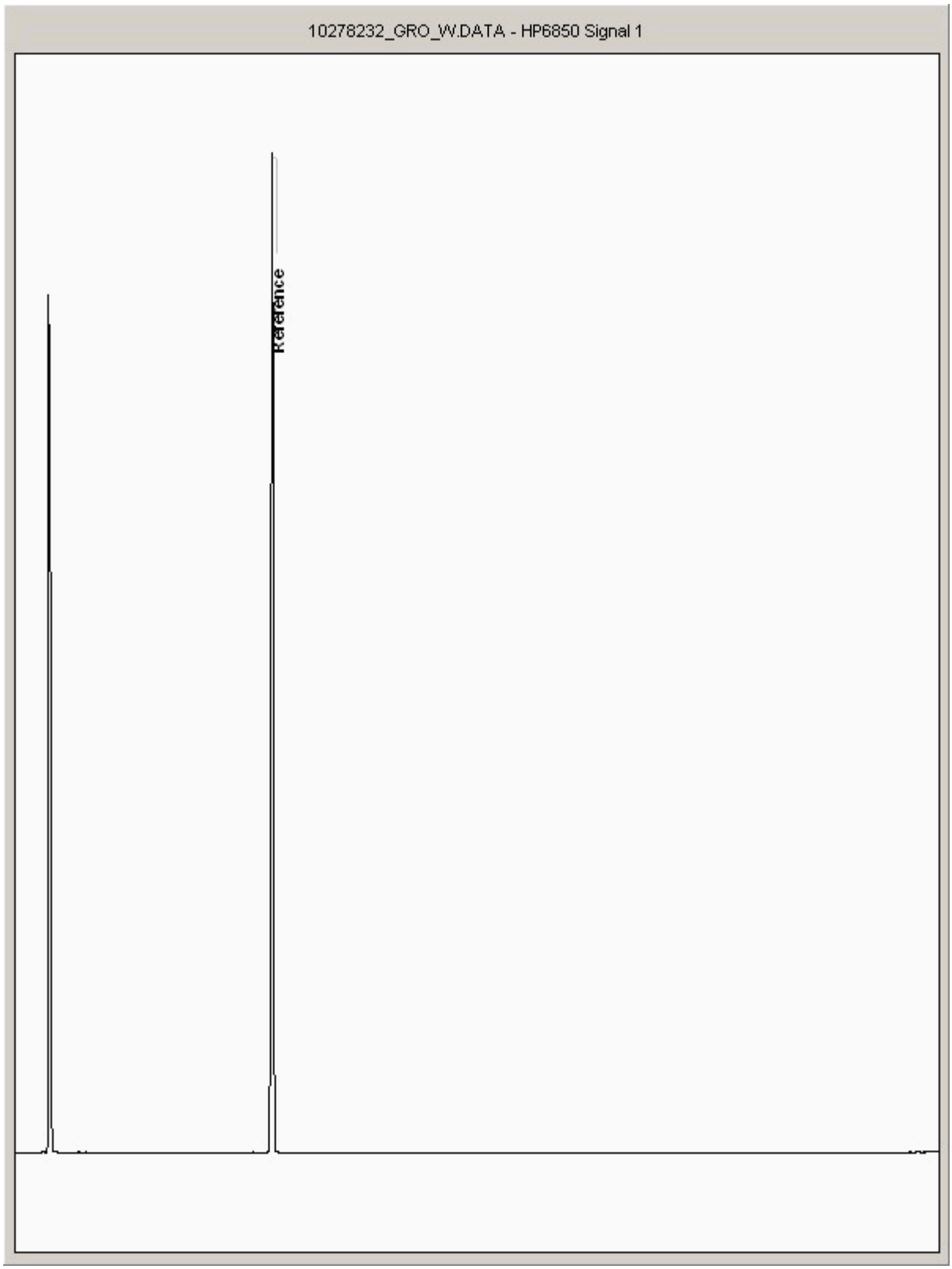
SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10278232
Sample ID : BH3/2

Depth :



CERTIFICATE OF ANALYSIS

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA Leach tests, flash point, ammonium as NH4 by the BRE method, VOC TICS, SVOC TICS, TOF-MS SCAN/SEARCH and TOF-MS TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for both soil jars, tubs and volatile jars. All waters and vials will be discarded 10 days after the analysis is completed (e-mailed). All material removed during an asbestos containing material screen and analysed for the presence of asbestos will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be screened in house for the presence of large asbestos containing material fragments/pieces. If no asbestos containing material is found this will be reported as 'no asbestos containing material detected'. If asbestos containing material is detected it will be removed and analysed by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If asbestos containing material is present no further analysis will be undertaken. At no point is the fibre content of the soil sample determined.

7. If no separate volatile sample is supplied by the client, the integrity of the data may be compromised if the laboratory is required to create a sub-sample from the bulk sample -similarly, if a headspace or sediment is present in the volatile sample. This will be flagged up as an invalid VOC on the test schedule or recorded on the log sheet.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. A table containing the date of analysis for each parameter is not routinely included with the report, but is available upon request.

12. Results relate only to the items tested

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 14).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. Our MCERTS accreditation for PAHs by GCMS applies to all product types apart from Kerosene, where naphthalene only is not
accredited.

19. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

20. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

21. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

22. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

23. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials -whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute themajor part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

24. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C4 -C10 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

SOLID MATRICES EXTRACTION SUMMARY

ANALYSIS	D/C OR WET	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
SOLVENT EXTRACTABLE MATTER	D&C	DCM	SOXTHERM	GRAVIMETRIC
CYCLOHEXANE EXT. MATTER	D&C	CYCLOHEXANE	SOXTHERM	GRAVIMETRIC
THIN LAYER CHROMATOGRAPHY	D&C	DCM	SOXTHERM	IATROSCAN
ELEMENTAL SULPHUR	D&C	DCM	SOXTHERM	HPLC
PHENOLS BY GCMS	WET	DCM	SOXTHERM	GC-MS
HERBICIDES	D&C	HEXANE/ACETONE	SOXTHERM	GC-MS
PESTICIDES	D&C	HEXANE/ACETONE	SOXTHERM	GC-MS
EPH (DRO)	D&C	HEXANE/ACETONE	END OVER END	GC-FID
EPH (MIN OIL)	D&C	HEXANE/ACETONE	END OVER END	GC-FID
EPH (CLEANED UP)	D&C	HEXANE/ACETONE	END OVER END	GC-FID
EPH CWG BY GC	D&C	HEXANE/ACETONE	END OVER END	GC-FID
PCB TOT / PCB CON	D&C	HEXANE/ACETONE	END OVER END	GC-MS
POLYAROMATIC HYDROCARBONS (MS)	WET	HEXANE/ACETONE	MICROWAVE TM218.	GC-MS
C8-C40 (C6-C40) EZ FLASH	WET	HEXANE/ACETONE	SHAKER	GC-EZ
POLYAROMATIC HYDROCARBONS RAPID GC	WET	HEXANE/ACETONE	SHAKER	GC-EZ
SEMI VOLATILE ORGANIC COMPOUNDS	WET	DCM/ACETONE	SONICATE	GC-MS

LIQUID MATRICES EXTRACTION SUMMARY

ANALYSIS	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
PAH MS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
EPH	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
EPH CWG	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
MINERAL OIL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
PCB 7 CONGENERS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
PCB TOTAL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
SVOC	DCM	LIQUID/LIQUID SHAKE	GC MS
FREE SULPHUR	DCM	SOLID PHASE EXTRACTION	HPLC
PEST OCP/OPP	DCM	LIQUID/LIQUID SHAKE	GC MS
TRIAZINE HERBS	DCM	LIQUID/LIQUID SHAKE	GC MS
PHENOLS MS	DCM	SOLID PHASE EXTRACTION	GC MS
TPH by INFRARED (IR)	TCE	LIQUID/LIQUID SHAKE	HPLC
MINERAL OIL by IR	TCE	LIQUID/LIQUID SHAKE	HPLC
GLYCOLS	NONE	DIRECT INJECTION	GC MS

Identification of Asbestos in Bulk Materials

The results for asbestos identification for soil samples are obtained from possible Asbestos Containing Material, removed during the 'Screening of soils for Asbestos Containing Materials', which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -
Trace -Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in MDHS 100.

The identification of asbestos containing materials falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Last Updated : 2010/09/08

SDG:	141017-59	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	292090
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before presevation was performed
§	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

ALcontrol Laboratories

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CWM Environmental Ltd
Nantyclaws Landfill Site
Llanddarg Road
Carmarthen
Carmarthenshire
SA32 8BG

Attention: Mike Lewis

CERTIFICATE OF ANALYSIS

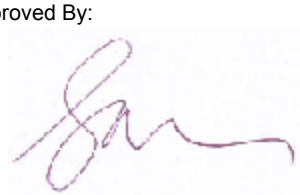
Date:	02 December 2014
Customer:	H_CWMENV_NAN
Sample Delivery Group (SDG):	141018-10
Your Reference:	
Location:	Phase 2-3
Report No:	294068

We received 20 samples on Saturday October 18, 2014 and 20 of these samples were scheduled for analysis which was completed on Tuesday December 02, 2014. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:



Sonia McWhan

Operations Manager

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Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No.

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
10209499	BH3/9			17/10/2014
10209507	Cell 5 Sump			17/10/2014
10209508	Cell 6 Sump			17/10/2014
10209493	Cell 7 Sump			17/10/2014
10209494	Cell 1/2 Sump			17/10/2014
10209509	Cell 3/4 Sump			17/10/2014
10209496	Leachate Holding Laggon			17/10/2014
10209498	NACW228			17/10/2014
10209500	NACW229			17/10/2014
10209503	SW201			17/10/2014
10209510	SW202			17/10/2014
10209501	SW203			17/10/2014
10209514	SW204			17/10/2014
10209495	SW205			17/10/2014
10209504	SW206			17/10/2014
10209511	SW207			17/10/2014
10209506	UD1			17/10/2014
10209505	UD3			17/10/2014
10209497	UD4			17/10/2014
10209502	UD5			17/10/2014

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

| | | | | |

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)			10209499	10209507	10209508	10209493	10209494	10209509
Customer Sample Reference			BH3/9	Cell 5 Sump	Cell 6 Sump	Cell 7 Sump	Cell 1/2 Sump	Cell 3/4 Sump
AGS Reference								
Depth (m)								
Container			1l Glass bottle (ALE	1plastic (ALE221)	Dissolved Metals Pr	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1plastic (ALE221)	250ml BOD (ALE21	Dissolved Metals Pr	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1plastic (ALE221)	250ml BOD (ALE21	Dissolved Metals Pr	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1plastic (ALE221)	250ml BOD (ALE21	Dissolved Metals Pr	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1plastic (ALE221)	250ml BOD (ALE21	Dissolved Metals Pr	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE	1plastic (ALE221)	250ml BOD (ALE21	Dissolved Metals Pr	H2SO4 (ALE244)	NaOH (ALE245)
OC, OP Pesticides and Triazine Herb	All	NDPs: 0 Tests: 17						X						X						X						X															
PCB Congeners - Aqueous (W)	All	NDPs: 0 Tests: 17						X						X						X						X															
pH Value	All	NDPs: 0 Tests: 20		X					X						X						X						X															
Phenols by ms (w)	All	NDPs: 0 Tests: 20	X					X						X						X						X															
Suspended Solids	All	NDPs: 0 Tests: 20		X					X						X						X						X															
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 20	X					X						X						X						X															
Total EPH (aq)	All	NDPs: 0 Tests: 20	X					X						X						X						X															
Total Organic and Inorganic Carbon	All	NDPs: 0 Tests: 20	X					X						X						X						X															
VOC MS (W)	All	NDPs: 0 Tests: 20					X						X						X						X																

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
Acid Herbicides (W)	All	NDPs: 0 Tests: 15	10209509	Cell 3/4 Sump			Vial (ALE297)
			10209496	Leachate Holding Laggon			1l Glass bottle (ALE
			10209498	NACW228			1l Glass bottle (ALE
			10209500	NACW229			1l Glass bottle (ALE
			10209503	SW201			1l Glass bottle (ALE
			10209510	SW202			1l Glass bottle (ALE
			10209501	SW203			1l Glass bottle (ALE
			10209514	SW204			0.5l glass bottle (AL
							1l Glass bottle (ALE
Alkalinity as CaCO3	All	NDPs: 0 Tests: 20					1lplastic (ALE221)
Alkalinity Filtered as CaCO3	All	NDPs: 0 Tests: 19					1lplastic (ALE221)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 20					H2SO4 (ALE244)
Anions by Kone (w)	All	NDPs: 0 Tests: 20					1lplastic (ALE221)
BOD True Total	All	NDPs: 0 Tests: 20					250ml BOD (ALE21
COD Unfiltered	All	NDPs: 0 Tests: 21					1lplastic (ALE221)
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 20					1lplastic (ALE221)
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 20					1lplastic (ALE221)
EPH (DRO) (C10-C40) Aqueous (W)	All	NDPs: 0 Tests: 20					1l Glass bottle (ALE
GRO by GC-FID (W)	All	NDPs: 0 Tests: 20					Vial (ALE297)
Ionic Balance	All	NDPs: 0 Tests: 20					1lplastic (ALE221)
Mercury Dissolved	All	NDPs: 0 Tests: 20					Dissolved Metals Pr
Metals by iCap-OES Dissolved (W)	All	NDPs: 0 Tests: 20					1lplastic (ALE221)
Nitrite by Kone (w)	All	NDPs: 0 Tests: 20					NaOH (ALE245)

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
10209509	Cell 3/4 Sump			Vial (ALE297)
10209496	Leachate Holding Laggon			1l Glass bottle (ALE
				1lplastic (ALE221)
				250ml BOD (ALE21
				Dissolved Metals Pr
				H2SO4 (ALE244)
				NaOH (ALE245)
				Vial (ALE297)
10209498	NACW228			1l Glass bottle (ALE
				1lplastic (ALE221)
				Dissolved Metals Pr
				H2SO4 (ALE244)
				NaOH (ALE245)
				Vial (ALE297)
10209500	NACW229			1l Glass bottle (ALE
				1lplastic (ALE221)
				Dissolved Metals Pr
				H2SO4 (ALE244)
				NaOH (ALE245)
				Vial (ALE297)
10209503	SW201			1l Glass bottle (ALE
				1lplastic (ALE221)
				Dissolved Metals Pr
				H2SO4 (ALE244)
				NaOH (ALE245)
				Vial (ALE297)
10209510	SW202			1l Glass bottle (ALE
				1lplastic (ALE221)
				Dissolved Metals Pr
				H2SO4 (ALE244)
				NaOH (ALE245)
				Vial (ALE297)
10209501	SW203			1l Glass bottle (ALE
				1lplastic (ALE221)
				Dissolved Metals Pr
				H2SO4 (ALE244)
				NaOH (ALE245)
				Vial (ALE297)
10209514	SW204			0.5l glass bottle (AL
				1l Glass bottle (ALE

| | | | | |

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)	10209514	10209495	10209504	10209511	10209506	10209505	10209497
Customer Sample Reference	SW204	SW205	SW206	SW207	UD1	UD3	UD4
AGS Reference							
Depth (m)							
Container	1plastic (ALE221)	Dissolved Metals Pr	H2SO4 (ALE244)	NaOH (ALE245)	Vial (ALE297)	1l Glass bottle (ALE

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			10209514	SW204			1plastic (ALE221)
							Dissolved Metals Pr
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
OC, OP Pesticides and Triazine Herb	All	NDPs: 0 Tests: 17	X				1l Glass bottle (ALE
PCB Congeners - Aqueous (W)	All	NDPs: 0 Tests: 17	X				1l Glass bottle (ALE
pH Value	All	NDPs: 0 Tests: 20		X			1plastic (ALE221)
Phenols by ms (w)	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
Suspended Solids	All	NDPs: 0 Tests: 20		X			1plastic (ALE221)
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
Total EPH (aq)	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
Total Organic and Inorganic Carbon	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
VOC MS (W)	All	NDPs: 0 Tests: 20					Vial (ALE297)

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			10209495	SW205			1plastic (ALE221)
							Dissolved Metals Pr
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
OC, OP Pesticides and Triazine Herb	All	NDPs: 0 Tests: 17	X				1l Glass bottle (ALE
PCB Congeners - Aqueous (W)	All	NDPs: 0 Tests: 17	X				1l Glass bottle (ALE
pH Value	All	NDPs: 0 Tests: 20		X			1plastic (ALE221)
Phenols by ms (w)	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
Suspended Solids	All	NDPs: 0 Tests: 20		X			1plastic (ALE221)
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
Total EPH (aq)	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
Total Organic and Inorganic Carbon	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
VOC MS (W)	All	NDPs: 0 Tests: 20					Vial (ALE297)

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			10209504	SW206			1plastic (ALE221)
							Dissolved Metals Pr
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
OC, OP Pesticides and Triazine Herb	All	NDPs: 0 Tests: 17	X				1l Glass bottle (ALE
PCB Congeners - Aqueous (W)	All	NDPs: 0 Tests: 17	X				1l Glass bottle (ALE
pH Value	All	NDPs: 0 Tests: 20		X			1plastic (ALE221)
Phenols by ms (w)	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
Suspended Solids	All	NDPs: 0 Tests: 20		X			1plastic (ALE221)
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
Total EPH (aq)	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
Total Organic and Inorganic Carbon	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
VOC MS (W)	All	NDPs: 0 Tests: 20					Vial (ALE297)

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			10209511	SW207			1plastic (ALE221)
							Dissolved Metals Pr
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
OC, OP Pesticides and Triazine Herb	All	NDPs: 0 Tests: 17	X				1l Glass bottle (ALE
PCB Congeners - Aqueous (W)	All	NDPs: 0 Tests: 17	X				1l Glass bottle (ALE
pH Value	All	NDPs: 0 Tests: 20		X			1plastic (ALE221)
Phenols by ms (w)	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
Suspended Solids	All	NDPs: 0 Tests: 20		X			1plastic (ALE221)
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
Total EPH (aq)	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
Total Organic and Inorganic Carbon	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
VOC MS (W)	All	NDPs: 0 Tests: 20					Vial (ALE297)

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			10209506	UD1			1plastic (ALE221)
							Dissolved Metals Pr
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
OC, OP Pesticides and Triazine Herb	All	NDPs: 0 Tests: 17	X				1l Glass bottle (ALE
PCB Congeners - Aqueous (W)	All	NDPs: 0 Tests: 17	X				1l Glass bottle (ALE
pH Value	All	NDPs: 0 Tests: 20		X			1plastic (ALE221)
Phenols by ms (w)	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
Suspended Solids	All	NDPs: 0 Tests: 20		X			1plastic (ALE221)
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
Total EPH (aq)	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
Total Organic and Inorganic Carbon	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
VOC MS (W)	All	NDPs: 0 Tests: 20					Vial (ALE297)

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			10209505	UD3			1plastic (ALE221)
							Dissolved Metals Pr
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
OC, OP Pesticides and Triazine Herb	All	NDPs: 0 Tests: 17	X				1l Glass bottle (ALE
PCB Congeners - Aqueous (W)	All	NDPs: 0 Tests: 17	X				1l Glass bottle (ALE
pH Value	All	NDPs: 0 Tests: 20		X			1plastic (ALE221)
Phenols by ms (w)	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
Suspended Solids	All	NDPs: 0 Tests: 20		X			1plastic (ALE221)
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
Total EPH (aq)	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
Total Organic and Inorganic Carbon	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
VOC MS (W)	All	NDPs: 0 Tests: 20					Vial (ALE297)

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			10209497	UD4			1plastic (ALE221)
							Dissolved Metals Pr
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
OC, OP Pesticides and Triazine Herb	All	NDPs: 0 Tests: 17	X				1l Glass bottle (ALE
PCB Congeners - Aqueous (W)	All	NDPs: 0 Tests: 17	X				1l Glass bottle (ALE
pH Value	All	NDPs: 0 Tests: 20		X			1plastic (ALE221)
Phenols by ms (w)	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
Suspended Solids	All	NDPs: 0 Tests: 20		X			1plastic (ALE221)
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
Total EPH (aq)	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
Total Organic and Inorganic Carbon	All	NDPs: 0 Tests: 20	X				1l Glass bottle (ALE
VOC MS (W)	All	NDPs: 0 Tests: 20					Vial (ALE297)

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			10209497	10209502			
			UD4	UD5			
							Vial (ALE297)
							0.5l glass bottle (AL
							1l Glass bottle (ALE
							1lplastic (ALE221)
							Dissolved Metals Pr
							H2SO4 (ALE244)
							NaOH (ALE245)
							Vial (ALE297)
Acid Herbicides (W)	All	NDPs: 0 Tests: 15					
Alkalinity as CaCO3	All	NDPs: 0 Tests: 20		X			
Alkalinity Filtered as CaCO3	All	NDPs: 0 Tests: 19					
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 20					
Anions by Kone (w)	All	NDPs: 0 Tests: 20					
BOD True Total	All	NDPs: 0 Tests: 20					
COD Unfiltered	All	NDPs: 0 Tests: 21					
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 20					
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 20		X			
EPH (DRO) (C10-C40) Aqueous (W)	All	NDPs: 0 Tests: 20					
GRO by GC-FID (W)	All	NDPs: 0 Tests: 20	X				X
Ionic Balance	All	NDPs: 0 Tests: 20					
Mercury Dissolved	All	NDPs: 0 Tests: 20					
Metals by iCap-OES Dissolved (W)	All	NDPs: 0 Tests: 20					
Nitrite by Kone (w)	All	NDPs: 0 Tests: 20					

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	10209497	10209502
			Customer Sample Reference	UD4	UD5
			AGS Reference		
			Depth (m)		
			Container	Vial (ALE297)	0.5l glass bottle (AL 1l Glass bottle (ALE 1lplastic (ALE221) Dissolved Metals Pr H2SO4 (ALE244) NaOH (ALE245) Vial (ALE297)
OC, OP Pesticides and Triazine Herb	All	NDPs: 0 Tests: 17			X
PCB Congeners - Aqueous (W)	All	NDPs: 0 Tests: 17			X
pH Value	All	NDPs: 0 Tests: 20			X
Phenols by ms (w)	All	NDPs: 0 Tests: 20			X
Suspended Solids	All	NDPs: 0 Tests: 20			X
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 20			X
Total EPH (aq)	All	NDPs: 0 Tests: 20			X
Total Organic and Inorganic Carbon	All	NDPs: 0 Tests: 20			X
VOC MS (W)	All	NDPs: 0 Tests: 20		X	X

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	Cell 5 Sump	Cell 6 Sump	Cell 7 Sump	Cell 1/2 Sump	Cell 3/4 Sump
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209499	10209507	10209508	10209493	10209494	10209509
			AGS Reference						
Ionic balance	% Diff	Calulation		-5.47	-1.9	2.16	-13.2	-3.93	-0.103
Suspended solids, Total	<2 mg/l	TM022		265 #	325 #	143 #	65 #	144 #	285 #
Alkalinity, Total as CaCO3	<2 mg/l	TM043		115 #	5180 #	2970 #	1850 #	2840 #	5220 #
Alkalinity,Total as CaCO3 (diss.filt)	<2 mg/l	TM043		116	5020	3080	1880	2930	4940
Alkalinity, Bicarbonate as CaCO3 (diss.filt)	<2 mg/l	TM043		116	5020	3080	1880	2930	4940
BOD, unfiltered	<1 mg/l	TM045		5.02 #	<500 #	<500 #	96.4 #	371 #	<500 #
Organic Carbon, Total	<3 mg/l	TM090		13.6 #	1140 ♦ #	822 ♦ #	430 ♦ #	569 ♦ #	1140 ♦ #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		0.247 #	865 #	600 #	155 #	489 #	855 #
COD, unfiltered	<7 mg/l	TM107		119 #	2650 #	1770 #	468 #	1500 #	2730 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.484 #	12.2 #	7.86 #	4.91 #	7.45 #	12.4 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	0.127 #	0.104 #	<0.1 #	<0.1 #	0.103 #
Chromium (diss.filt)	<0.22 µg/l	TM152		1.74 #	305 #	185 #	111 #	176 #	270 #
Copper (diss.filt)	<0.85 µg/l	TM152			5.35 #	2.93 #	6.86 #	3.82 #	3.4 #
Lead (diss.filt)	<0.02 µg/l	TM152		0.253 #	4.34 #	2.82 #	2.49 #	2.67 #	3.51 #
Manganese (diss.filt)	<0.04 µg/l	TM152		47.9 #	1100 #	658 #	418 #	612 #	954 #
Nickel (diss.filt)	<0.15 µg/l	TM152		3.54 #	136 #	84.4 #	53.1 #	80.8 #	128 #
Zinc (diss.filt)	<0.41 µg/l	TM152		1.23 #	88.3 #	47.8 #	35.1 #	37 #	91.9 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		52.3 #	3480 #	2900 #	1620 #	2210 #	3190 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		<100	3480	2900	1620	2210	3190
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #
Nitrite as NO2	<0.05 mg/l	TM184		<0.05 #	<1 #	<1 #	1.08 #	<1 #	<1 #
Sulphate	<2 mg/l	TM184		91.5 #	<40 #	<40 #	<40 #	<40 #	<40 #
Chloride	<2 mg/l	TM184		37.1 #	1870 #	1130 #	706 #	1120 #	1890 #
Nitrate as NO3	<0.3 mg/l	TM184		6.37 #	<6 #	<6 #	<6 #	<6 #	<6 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		1.45 #	<2 #	<2 #	<2 #	<2 #	<2 #
PCB congener 28	<0.015 µg/l	TM197			<0.015	<0.015	<0.015	<0.015	<0.015
PCB congener 52	<0.015 µg/l	TM197			<0.015	<0.015	<0.015	<0.015	<0.015
PCB congener 101	<0.015 µg/l	TM197			<0.015	<0.015	<0.015	<0.015	<0.015
PCB congener 118	<0.015 µg/l	TM197			<0.015	<0.015	<0.015	<0.015	<0.015
PCB congener 138	<0.015 µg/l	TM197			<0.015	<0.015	<0.015	<0.015	<0.015
PCB congener 153	<0.015 µg/l	TM197			<0.015	<0.015	<0.015	<0.015	<0.015
PCB congener 180	<0.015 µg/l	TM197			<0.015	<0.015	<0.015	<0.015	<0.015

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	Cell 5 Sump	Cell 6 Sump	Cell 7 Sump	Cell 1/2 Sump	Cell 3/4 Sump
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209499	10209507	10209508	10209493	10209494	10209509
			AGS Reference						
Sum of detected EC7 PCB's	<0.105 µg/l	TM197			<0.105	<0.105	<0.105	<0.105	<0.105
Phenol	<0.5 µg/l	TM205		<1	121	136	108	142	150
2-methylphenol	<0.5 µg/l	TM205		<0.5	<10	<10	<10	<10	<10
3-methylphenol	<0.5 µg/l	TM205		<0.5	<10	<10	<10	<10	<10
4-methylphenol	<0.5 µg/l	TM205		<0.5	171	98.6	16.1	23.6	121
2-chlorophenol	<0.5 µg/l	TM205		<0.5	<10	<10	<10	<10	<10
2,4-dimethylphenol	<0.5 µg/l	TM205		<0.5	<10	<10	<10	<10	<10
4-chloro-3-methylphenol	<0.5 µg/l	TM205		<0.5	<10	<10	<10	<10	<10
2,6-dichlorophenol	<0.5 µg/l	TM205		<0.5	<10	<10	<10	<10	<10
4-Chlorophenol	<0.5 µg/l	TM205		<0.5	<10	<10	<10	<10	<10
2,4-dichlorophenol	<0.5 µg/l	TM205		<0.5	<10	<10	<10	<10	<10
2-nitrophenol	<0.5 µg/l	TM205		<0.5	<10	<10	<10	<10	<10
2,4,6-trichlorophenol	<0.5 µg/l	TM205		<0.5	<10	<10	<10	<10	<10
2,4,5-trichlorophenol	<0.5 µg/l	TM205		<0.5	<10	<10	<10	<10	<10
4-nitrophenol	<0.5 µg/l	TM205		<0.5	<10	<10	<10	<10	<10
2,3,5,6-tetrachlorophenol	<0.5 µg/l	TM205		<0.5	<10	<10	<10	<10	22
2,3,4,6-tetrachlorophenol	<0.5 µg/l	TM205		<0.5	<10	<10	<10	<10	18.4
2,4-dinitrophenol	<2.5 µg/l	TM205		<2.5	<50	<50	<50	<50	<50
DNOC	<3 µg/l	TM205		<3	<60	<60	<60	<60	<60
Pentachlorophenol	<2 µg/l	TM205		<2	<40	<40	<40	<40	65.1
Dinoseb	<4 µg/l	TM205		<4	<80	<80	<80	<80	<80
Calcium (diss.filt)	<0.012 mg/l	TM228		69.3 #	111 #	107 #	64.1 #	78 #	165 #
Sodium (diss.filt)	<0.076 mg/l	TM228		18.6 #	1320 #	784 #	488 #	756 #	1300 #
Magnesium (diss.filt)	<0.036 mg/l	TM228		6.52 #	52.9 #	49.2 #	29 #	43.5 #	85.4 #
Potassium (diss.filt)	<1 mg/l	TM228		20.3 #	721 #	439 #	242 #	318 #	730 #
Iron (diss.filt)	<0.019 mg/l	TM228		0.0759 #	2.11 #	2.17 #	1.55 #	2.03 #	3.22 #
pH	<1 pH Units	TM256		7.74 #	8.01 #	8.4 #	8.18 #	8.06 #	8.26 #

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Leachate Holding Laggon	NACW228	NACW229	SW201	SW202	SW203
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209496	10209498	10209500	10209503	10209510	10209501
			AGS Reference						
Ionic balance	% Diff	Calulation		-6.12	-0.308	-1.55	-5.52	-4.85	-4.96
Suspended solids, Total	<2 mg/l	TM022		72 #	283 #	328 #	22 #	19 #	2 #
Alkalinity, Total as CaCO3	<2 mg/l	TM043		1020 #	215 #	210 #	190 #	190 #	41 #
Alkalinity,Total as CaCO3 (diss.filt)	<2 mg/l	TM043		1070	210	210	190	195	41.5
Alkalinity, Bicarbonate as CaCO3 (diss.filt)	<2 mg/l	TM043		1070	210	210	185	195	41.5
BOD, unfiltered	<1 mg/l	TM045		97.4 #	4.32 #	4.9 #	2.04 #	<1 #	<1 #
Organic Carbon, Total	<3 mg/l	TM090		157 ♦ #	26.5 #	25.5 ♦ #	20.1 ♦ #	18.8 #	3.04 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		154 #	0.327 #	0.396 #	1.6 #	1.14 #	<0.2 #
COD, unfiltered	<7 mg/l	TM107		455 #	117 #	156 #	55.6 #	51.7 #	<7 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		2.86 #	0.786 #	0.783 #	0.695 #	0.677 #	0.132 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		62.3 #	2.03 #	2.51 #	1.59 #	1.43 #	0.55 #
Copper (diss.filt)	<0.85 µg/l	TM152		8.84 #			5.88 #	8.14 #	1.3 #
Lead (diss.filt)	<0.02 µg/l	TM152		3.37 #	0.358 #	0.362 #	0.105 #	0.205 #	0.077 #
Manganese (diss.filt)	<0.04 µg/l	TM152		247 #	85.4 #	137 #	22.3 #	263 #	11 #
Nickel (diss.filt)	<0.15 µg/l	TM152		30.1 #	5.13 #	5.64 #	2.85 #	5.28 #	0.738 #
Zinc (diss.filt)	<0.41 µg/l	TM152		42 #	1.7 #	1.19 #	2.79 #	7.86 #	72.2 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		870 #	<46 #	<46 #	<46 #	<46 #	<46 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		870	<100	<100	<100	<100	<100
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #
Nitrite as NO2	<0.05 mg/l	TM184		1.07 #	0.072 #	0.078 #	0.639 #	0.327 #	<0.05 #
Sulphate	<2 mg/l	TM184		<20 #	152 #	153 #	121 #	117 #	12.4 #
Chloride	<2 mg/l	TM184		385 #	59.6 #	60.4 #	57.8 #	54 #	12.9 #
Nitrate as NO3	<0.3 mg/l	TM184		<3 #	11 #	10.5 #	12.8 #	13.9 #	<0.3 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		<1 #	2.52 #	2.39 #	3.09 #	3.46 #	<0.1 #
PCB congener 28	<0.015 µg/l	TM197		<0.015			<0.015	<0.015	<0.015
PCB congener 52	<0.015 µg/l	TM197		<0.015			<0.015	<0.015	<0.015
PCB congener 101	<0.015 µg/l	TM197		<0.015			<0.015	<0.015	<0.015
PCB congener 118	<0.015 µg/l	TM197		<0.015			<0.015	<0.015	<0.015
PCB congener 138	<0.015 µg/l	TM197		<0.015			<0.015	<0.015	<0.015
PCB congener 153	<0.015 µg/l	TM197		<0.015			<0.015	<0.015	<0.015
PCB congener 180	<0.015 µg/l	TM197		<0.015			<0.015	<0.015	<0.015

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Depth (m)	Sample Type	Date Sampled	Sampled Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			Leachate Holding Laggon	.	Water(GW/SW)	17/10/2014	.	18/10/2014	141018-10	10209496	
			NACW228	.	Water(GW/SW)	17/10/2014	.	18/10/2014	141018-10	10209498	
			NACW229	.	Water(GW/SW)	17/10/2014	.	18/10/2014	141018-10	10209500	
			SW201	.	Water(GW/SW)	17/10/2014	.	18/10/2014	141018-10	10209503	
			SW202	.	Water(GW/SW)	17/10/2014	.	18/10/2014	141018-10	10209510	
			SW203	.	Water(GW/SW)	17/10/2014	.	18/10/2014	141018-10	10209501	
Sum of detected EC7 PCB's	<0.105 µg/l	TM197	<0.105							<0.105	<0.105
Phenol	<0.5 µg/l	TM205	55.7	25.3	12.1	<4	<2.5	<2.5			
2-methylphenol	<0.5 µg/l	TM205	<5	<5	<2.5	<0.5	<0.5	<0.5			
3-methylphenol	<0.5 µg/l	TM205	<5	<5	<2.5	<0.5	<0.5	<0.5			
4-methylphenol	<0.5 µg/l	TM205	<5	<5	<2.5	<0.5	<0.5	<0.5			
2-chlorophenol	<0.5 µg/l	TM205	<5	<5	<2.5	<0.5	<0.5	<0.5			
2,4-dimethylphenol	<0.5 µg/l	TM205	<5	<5	<2.5	<0.5	<0.5	<0.5			
4-chloro-3-methylphenol	<0.5 µg/l	TM205	<5	<5	<2.5	<0.5	<0.5	<0.5			
2,6-dichlorophenol	<0.5 µg/l	TM205	<5	<5	<2.5	<0.5	<0.5	<0.5			
4-Chlorophenol	<0.5 µg/l	TM205	<5	<5	<2.5	<0.5	<0.5	<0.5			
2,4-dichlorophenol	<0.5 µg/l	TM205	<5	<5	<2.5	<0.5	<0.5	<0.5			
2-nitrophenol	<0.5 µg/l	TM205	<5	<5	<2.5	<0.5	<0.5	<0.5			
2,4,6-trichlorophenol	<0.5 µg/l	TM205	<5	<5	<2.5	<0.5	<0.5	<0.5			
2,4,5-trichlorophenol	<0.5 µg/l	TM205	<5	<5	<2.5	<0.5	<0.5	<0.5			
4-nitrophenol	<0.5 µg/l	TM205	<5	<5	<2.5	<0.5	<0.5	<0.5			
2,3,5,6-tetrachlorophenol	<0.5 µg/l	TM205	<5	<5	<2.5	<0.5	<0.5	<0.5			
2,3,4,6-tetrachlorophenol	<0.5 µg/l	TM205	<5	<5	<2.5	<0.5	<0.5	<0.5			
2,4-dinitrophenol	<2.5 µg/l	TM205	<25	<25	<12.5	<2.5	<2.5	<2.5			
DNOC	<3 µg/l	TM205	<30	<30	<15	<3	<3	<3			
Pentachlorophenol	<2 µg/l	TM205	<20	<20	<10	<2	<2	<2			
Dinoseb	<4 µg/l	TM205	<40	<40	<20	<4	<4	<4			
Calcium (diss.filt)	<0.012 mg/l	TM228	42.8 #	119 #	117 #	93 #	93.9 #	16.9 #			
Sodium (diss.filt)	<0.076 mg/l	TM228	240 #	30.9 #	30.2 #	25.9 #	26.4 #	6.13 #			
Magnesium (diss.filt)	<0.036 mg/l	TM228	16.7 #	10.5 #	10.3 #	8.37 #	8.43 #	1.82 #			
Potassium (diss.filt)	<1 mg/l	TM228	136 #	39.3 #	38.5 #	27.9 #	27.8 #	2.32 #			
Iron (diss.filt)	<0.019 mg/l	TM228	1.07 #	0.148 #	0.165 #	0.0377 #	0.0657 #	0.151 #			
pH	<1 pH Units	TM256	8.01 #	7.7 #	8.32 #	8.15 #	8.07 #	7.55 #			

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW204	SW205	SW206	SW207	UD1	UD3
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209514	10209495	10209504	10209511	10209506	10209505
			AGS Reference						
Ionic balance	% Diff	Calulation		-4.07	-2.57	-10.7	-5.14	-1.87	-2.14
Suspended solids, Total	<2 mg/l	TM022		20 #	27.5 #	<2 #	26 #	253 #	91 #
Alkalinity, Total as CaCO3	<2 mg/l	TM043		195 #	245 #	40.5 #	185 #	145 #	165 #
Alkalinity,Total as CaCO3 (diss.filt)	<2 mg/l	TM043		190	235		185	150	165
Alkalinity, Bicarbonate as CaCO3 (diss.filt)	<2 mg/l	TM043		190	235		185	150	165
BOD, unfiltered	<1 mg/l	TM045		<1 #	<1 #	<1 #	2.7 #	<1 #	<1 #
Organic Carbon, Total	<3 mg/l	TM090		19.1 ♦ #	27.2 ♦ #	<3 #	19.9 ♦ #	4.69 #	4.82 #
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		1.31 #	1.32 #	<0.2 #	1.64 #	0.338 #	0.397 #
COD, unfiltered	<7 mg/l	TM107		57.7 #	68.2 #	7.09 #	56.1 #	25.6 #	13.8 #
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.658 #	0.814 #	0.133 #	0.691 #	0.341 #	0.362 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		1.43 #	1.33 #	0.54 #	1.72 #	2.04 #	2.05 #
Copper (diss.filt)	<0.85 µg/l	TM152		8.4 #	9.31 #	1.59 #	6.39 #	1.87 #	1.55 #
Lead (diss.filt)	<0.02 µg/l	TM152		0.2 #	0.183 #	0.056 #	0.118 #	0.066 #	0.034 #
Manganese (diss.filt)	<0.04 µg/l	TM152		263 #	336 #	12.5 #	15.6 #	50.2 #	111 #
Nickel (diss.filt)	<0.15 µg/l	TM152		5.25 #	6.38 #	0.893 #	3.65 #	1.22 #	1.25 #
Zinc (diss.filt)	<0.41 µg/l	TM152		6.58 #	7.32 #	70.8 #	2.88 #	1.2 #	1.56 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		<46 #	63.7 #	<46 #	66.7 #	<46 #	<46 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		<100	<100	<100	<100	<100	<100
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #
Nitrite as NO2	<0.05 mg/l	TM184		0.307 #	0.377 #	<0.05 #	0.606 #	<0.05 #	<0.05 #
Sulphate	<2 mg/l	TM184		115 #	148 #	14.2 #	120 #	20 #	20 #
Chloride	<2 mg/l	TM184		54.4 #	68.8 #	18 #	58.6 #	20.1 #	21 #
Nitrate as NO3	<0.3 mg/l	TM184		14.6 #	19.7 #	<0.3 #	12.8 #	5.29 #	5.37 #
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		3.51 #	4.5 #	<0.1 #	3.14 #	1.2 #	1.22 #
PCB congener 28	<0.015 µg/l	TM197		<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
PCB congener 52	<0.015 µg/l	TM197		<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
PCB congener 101	<0.015 µg/l	TM197		<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
PCB congener 118	<0.015 µg/l	TM197		<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
PCB congener 138	<0.015 µg/l	TM197		<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
PCB congener 153	<0.015 µg/l	TM197		<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
PCB congener 180	<0.015 µg/l	TM197		<0.015	<0.015	<0.015	<0.015	<0.015	<0.015

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW204	SW205	SW206	SW207	UD1	UD3
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209514	10209495	10209504	10209511	10209506	10209505
			AGS Reference						
Sum of detected EC7 PCB's	<0.105 µg/l	TM197		<0.105	<0.105	<0.105	<0.105	<0.105	<0.105
Phenol	<0.5 µg/l	TM205		<2.5	<4	<2.5	<2.5	<4	<1
2-methylphenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
3-methylphenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-methylphenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-chlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dimethylphenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-chloro-3-methylphenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-dichlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-Chlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dichlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-nitrophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-trichlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,5-trichlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-nitrophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,3,5,6-tetrachlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,3,4,6-tetrachlorophenol	<0.5 µg/l	TM205		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-dinitrophenol	<2.5 µg/l	TM205		<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
DNOC	<3 µg/l	TM205		<3	<3	<3	<3	<3	<3
Pentachlorophenol	<2 µg/l	TM205		<2	<2	<2	<2	<2	<2
Dinoseb	<4 µg/l	TM205		<4	<4	<4	<4	<4	<4
Calcium (diss.filt)	<0.012 mg/l	TM228		94 #	123 #	17 #	94.7 #	53.7 #	57.7 #
Sodium (diss.filt)	<0.076 mg/l	TM228		26.3 #	35.7 #	6.67 #	26.6 #	13.4 #	14.2 #
Magnesium (diss.filt)	<0.036 mg/l	TM228		8.39 #	11.3 #	2.02 #	8.46 #	6.2 #	6.67 #
Potassium (diss.filt)	<1 mg/l	TM228		27.7 #	39.8 #	2.48 #	27.7 #	4.82 #	5.33 #
Iron (diss.filt)	<0.019 mg/l	TM228		0.0429 #	0.0879 #	0.17 #	0.0348 #	<0.019 #	<0.019 #
pH	<1 pH Units	TM256		7.99 #	8.09 #	7.77 #	8.23 #	7.66 #	8.29 #

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	UD4	UD5				
			Depth (m)	.	.				
			Sample Type	Water(GW/SW)	Water(GW/SW)				
			Date Sampled	17/10/2014	17/10/2014				
			Sampled Time	.	.				
			Date Received	18/10/2014	18/10/2014				
			SDG Ref	141018-10	141018-10				
			Lab Sample No.(s)	10209497	10209502				
			AGS Reference						
Ionic balance	% Diff	Calulation		-2.58	0.43				
Suspended solids, Total	<2 mg/l	TM022		95 #	13 #				
Alkalinity, Total as CaCO3	<2 mg/l	TM043		195 #	120 #				
Alkalinity,Total as CaCO3 (diss.filt)	<2 mg/l	TM043		195	130				
Alkalinity, Bicarbonate as CaCO3 (diss.filt)	<2 mg/l	TM043		195	130				
BOD, unfiltered	<1 mg/l	TM045		<1 #	<1 #				
Organic Carbon, Total	<3 mg/l	TM090		5.36 #	12.6 ♦ #				
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		<0.2 #	0.321 #				
COD, unfiltered	<7 mg/l	TM107		22.7 #	29.5 #				
Conductivity @ 20 deg.C	<0.005 mS/cm	TM120		0.413 #	0.645 #				
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #				
Chromium (diss.filt)	<0.22 µg/l	TM152		2.29 #	4.87 #				
Copper (diss.filt)	<0.85 µg/l	TM152		0.969 #	4.45 #				
Lead (diss.filt)	<0.02 µg/l	TM152		0.066 #	0.389 #				
Manganese (diss.filt)	<0.04 µg/l	TM152		167 #	535 #				
Nickel (diss.filt)	<0.15 µg/l	TM152		1.35 #	3.36 #				
Zinc (diss.filt)	<0.41 µg/l	TM152		1.39 #	6.05 #				
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		<46 #	<46 #				
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		<100	<100				
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	0.0208 #				
Nitrite as NO2	<0.05 mg/l	TM184		<0.05 #	0.114 #				
Sulphate	<2 mg/l	TM184		19.5 #	160 #				
Chloride	<2 mg/l	TM184		22.4 #	40.6 #				
Nitrate as NO3	<0.3 mg/l	TM184		6.11 #	23 #				
Total Oxidised Nitrogen as N	<0.1 mg/l	TM184		1.39 #	5.24 #				
PCB congener 28	<0.015 µg/l	TM197		<0.015	<0.015				
PCB congener 52	<0.015 µg/l	TM197		<0.015	<0.015				
PCB congener 101	<0.015 µg/l	TM197		<0.015	<0.015				
PCB congener 118	<0.015 µg/l	TM197		<0.015	<0.015				
PCB congener 138	<0.015 µg/l	TM197		<0.015	<0.015				
PCB congener 153	<0.015 µg/l	TM197		<0.015	<0.015				
PCB congener 180	<0.015 µg/l	TM197		<0.015	<0.015				

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	UD4	UD5				
			Depth (m)	.	.				
			Sample Type	Water(GW/SW)	Water(GW/SW)				
			Date Sampled	17/10/2014	17/10/2014				
			Sampled Time	.	.				
			Date Received	18/10/2014	18/10/2014				
			SDG Ref	141018-10	141018-10				
			Lab Sample No.(s)	10209497	10209502				
			AGS Reference						
Sum of detected EC7 PCB's	<0.105 µg/l	TM197		<0.105	<0.105				
Phenol	<0.5 µg/l	TM205		<1	<1				
2-methylphenol	<0.5 µg/l	TM205		<0.5	<0.5				
3-methylphenol	<0.5 µg/l	TM205		<0.5	<0.5				
4-methylphenol	<0.5 µg/l	TM205		<0.5	<0.5				
2-chlorophenol	<0.5 µg/l	TM205		<0.5	<0.5				
2,4-dimethylphenol	<0.5 µg/l	TM205		<0.5	<0.5				
4-chloro-3-methylphenol	<0.5 µg/l	TM205		<0.5	<0.5				
2,6-dichlorophenol	<0.5 µg/l	TM205		<0.5	<0.5				
4-Chlorophenol	<0.5 µg/l	TM205		<0.5	<0.5				
2,4-dichlorophenol	<0.5 µg/l	TM205		<0.5	<0.5				
2-nitrophenol	<0.5 µg/l	TM205		<0.5	<0.5				
2,4,6-trichlorophenol	<0.5 µg/l	TM205		<0.5	<0.5				
2,4,5-trichlorophenol	<0.5 µg/l	TM205		<0.5	<0.5				
4-nitrophenol	<0.5 µg/l	TM205		<0.5	<0.5				
2,3,5,6-tetrachlorophenol	<0.5 µg/l	TM205		<0.5	<0.5				
2,3,4,6-tetrachlorophenol	<0.5 µg/l	TM205		<0.5	<0.5				
2,4-dinitrophenol	<2.5 µg/l	TM205		<2.5	<2.5				
DNOC	<3 µg/l	TM205		<3	<3				
Pentachlorophenol	<2 µg/l	TM205		<2	<2				
Dinoseb	<4 µg/l	TM205		<4	<4				
Calcium (diss.filt)	<0.012 mg/l	TM228		66.6 #	113 #				
Sodium (diss.filt)	<0.076 mg/l	TM228		15.6 #	24.8 #				
Magnesium (diss.filt)	<0.036 mg/l	TM228		7.64 #	7.79 #				
Potassium (diss.filt)	<1 mg/l	TM228		6 #	6.11 #				
Iron (diss.filt)	<0.019 mg/l	TM228		<0.019 #	0.188 #				
pH	<1 pH Units	TM256		7.51 #	7.45 #				

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Acid Herbicides (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	Cell 5 Sump	Cell 6 Sump	Cell 7 Sump	Cell 1/2 Sump	Cell 3/4 Sump
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209499	10209507	10209508	10209493	10209494	10209509
			AGS Reference						
Phenoxyacetic acid (PAA)	<0.031 µg/l	TM186		0.0402 ♦ #	14.9 ♦ #	8.23 ♦ #	5.33 ♦ #	5.47 ♦ #	13.3 ♦ #
Dicamba	<0.033 µg/l	TM186		<0.033 ♦ #	<1.69 ♦ #	<0.674 ♦ #	<0.636 ♦ #	<3.3 ♦ #	<1.82 ♦ #
Phenoxypropionic acid (PPA)	<0.023 µg/l	TM186		<0.023	45.6	33.1	19.6	<2.3	39
4-Chlorophenoxyacetic acid (4-CPA)	<0.037 µg/l	TM186		<0.037 ♦ #	<0.37 ♦ #	<0.37 ♦ #	<0.37 ♦ #	<3.7 ♦ #	<0.37 ♦ #
4-Phenoxybutyric acid	<0.019 µg/l	TM186		<0.0241 ♦ #	0.771 ♦ #	0.555 ♦ #	0.481 ♦ #	<1.9 ♦ #	0.878 ♦ #
Bentazone	<0.018 µg/l	TM186		<0.018 ♦ #	<0.18 ♦ #	<0.18 ♦ #	<0.18 ♦ #	<1.8 ♦ #	<0.18 ♦ #
Bromoxynil	<0.022 µg/l	TM186		<0.022	<0.341	<0.295	<0.22	<2.2	<0.524
2,4-Dichlorophenoxy acetic acid (2,4-D)	<0.026 µg/l	TM186		<0.026 ♦ #	<0.26 ♦ #	<0.26 ♦ #	<0.26 ♦ #	<2.6 ♦ #	<0.26 ♦ #
2-methyl-4-Chlorophenoxy acetic acid (MCPA)	<0.03 µg/l	TM186		<0.03 ♦ #	<0.3 ♦ #	<0.3 ♦ #	<0.3 ♦ #	<3 ♦ #	<0.3 ♦ #
2-methyl-4,6-Dinitrophenol	<0.041 µg/l	TM186		<0.041	<0.41	<0.41	<0.41	<4.1	<0.41
Triclopyr	<0.022 µg/l	TM186		<0.022 ♦ #	<0.22 ♦ #	<0.22 ♦ #	<0.22 ♦ #	<2.2 ♦ #	<0.22 ♦ #
Ioxynil	<0.017 µg/l	TM186		<0.017	<0.17	<0.17	<0.17	<0.17	<0.17
2,4-Dichlorophenoxy propanoic acid (2,4-DP)	<0.015 µg/l	TM186		<0.015 ♦ #	3.21 ♦ #	2.19 ♦ #	1.27 ♦ #	<1.5 ♦ #	3.23 ♦ #
2,4,5-Trichlorophenol (2,4,5-T)	<0.029 µg/l	TM186		<0.029 ♦ #	<0.478 ♦ #	<0.29 ♦ #	<0.29 ♦ #	<2.9 ♦ #	<0.446 ♦ #
Mecoprop (MCPP)	<0.025 µg/l	TM186		0.072	67.9	45.1	29.1	22.6	57.9
4-(2,4-Dichlorophenoxy) butyric acid (2,4-DB)	<0.022 µg/l	TM186		<0.025 ♦ #	<0.355 ♦ #	<0.308 ♦ #	<0.291 ♦ #	<2.27 ♦ #	<0.443 ♦ #
4-(4-Chloro-o-tolyloxy) butyric acid (MCPB)	<0.029 µg/l	TM186		<0.029 ♦	<0.29 ♦	<0.29 ♦	<0.29 ♦	<2.9 ♦	<0.29 ♦
2-(2,4,5-Trichlorophenoxy) proprionic acid	<0.024 µg/l	TM186		<0.024 ♦ #	<0.24 ♦ #	<0.24 ♦ #	<0.24 ♦ #	<2.4 ♦ #	<0.24 ♦ #
Dinoseb	<0.027 µg/l	TM186		<0.027	<0.27	<0.27	<0.27	<2.7	<0.27
Pentachlorophenol	<0.032 µg/l	TM186		<0.032	<0.32	<0.32	<0.32	<3.2	<0.32

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Acid Herbicides (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Leachate Holding Laggon	NACW228	NACW229	SW204	UD1	UD3
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209496	10209498	10209500	10209514	10209506	10209505
			AGS Reference						
Phenoxyacetic acid (PAA)	<0.031 µg/l	TM186		1.04 ♦ #	0.0869 ♦ #	0.109 ♦ #	<0.031 ♦ #	<0.101 ♦ #	<0.162 ♦ #
Dicamba	<0.033 µg/l	TM186		<0.33 ♦ #	<0.033 ♦ #	<0.033 ♦ #	<0.033 ♦ #	<0.033 ♦ #	<0.033 ♦ #
Phenoxypropionic acid (PPA)	<0.023 µg/l	TM186		3.71	0.0443	0.0334	<0.023	<0.023	<0.023
4-Chlorophenoxyacetic acid (4-CPA)	<0.037 µg/l	TM186		<0.37 ♦ #	<0.037 ♦ #	<0.037 ♦ #	<0.037 ♦ #	<0.037 ♦ #	<0.037 ♦ #
4-Phenoxybutyric acid	<0.019 µg/l	TM186		0.371 ♦ #	<0.0267 ♦ #	<0.0207 ♦ #	<0.0232 ♦ #	<0.019 ♦ #	<0.019 ♦ #
Bentazone	<0.018 µg/l	TM186		<0.18 ♦ #	<0.018 ♦ #	<0.018 ♦ #	<0.018 ♦ #	<0.018 ♦ #	<0.018 ♦ #
Bromoxynil	<0.022 µg/l	TM186		<0.22	<0.022	<0.022	<0.022	<0.022	<0.022
2,4-Dichlorophenoxy acetic acid (2,4-D)	<0.026 µg/l	TM186		<0.26 ♦ #	<0.026 ♦ #	<0.026 ♦ #	<0.026 ♦ #	<0.026 ♦ #	<0.026 ♦ #
2-methyl-4-Chlorophenoxy acetic acid (MCPA)	<0.03 µg/l	TM186		<0.3 ♦ #	<0.03 ♦ #	<0.0303 ♦ #	<0.03 ♦ #	<0.03 ♦ #	<0.03 ♦ #
2-methyl-4,6-Dinitrophenol	<0.041 µg/l	TM186		<0.41	<0.041	<0.041	<0.041	<0.041	<0.041
Triclopyr	<0.022 µg/l	TM186		<0.22 ♦ #	<0.022 ♦ #	<0.022 ♦ #	<0.022 ♦ #	<0.022 ♦ #	<0.022 ♦ #
Ioxynil	<0.017 µg/l	TM186		<0.17	<0.017	<0.017	<0.017	<0.017	<0.017
2,4-Dichlorophenoxy propanoic acid (2,4-DP)	<0.015 µg/l	TM186		0.543 ♦ #	0.0229 ♦ #	0.0221 ♦ #	<0.0245 ♦ #	<0.015 ♦ #	<0.015 ♦ #
2,4,5-Trichlorophenol (2,4,5-T)	<0.029 µg/l	TM186		<0.29 ♦ #	<0.029 ♦ #	<0.029 ♦ #	<0.029 ♦ #	<0.029 ♦ #	<0.029 ♦ #
Mecoprop (MCPP)	<0.025 µg/l	TM186		6.94	0.159	0.178	0.0782	<0.025	<0.025
4-(2,4-Dichlorophenoxy) butyric acid (2,4-DB)	<0.022 µg/l	TM186		<0.293 ♦ #	<0.0272 ♦ #	<0.0262 ♦ #	<0.0321 ♦ #	<0.022 ♦ #	<0.022 ♦ #
4-(4-Chloro-o-tolyloxy) butyric acid (MCPB)	<0.029 µg/l	TM186		<0.29 ♦	<0.029 ♦	<0.029 ♦	<0.029 ♦	<0.029 ♦	<0.029 ♦
2-(2,4,5-Trichlorophenoxy) proprionic acid	<0.024 µg/l	TM186		<0.24 ♦ #	<0.024 ♦ #	<0.024 ♦ #	<0.024 ♦ #	<0.024 ♦ #	<0.024 ♦ #
Dinoseb	<0.027 µg/l	TM186		<0.27	<0.027	<0.027	<0.027	<0.027	<0.027
Pentachlorophenol	<0.032 µg/l	TM186		<0.32	<0.032	<0.032	<0.032	<0.032	<0.032

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Acid Herbicides (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	UD4	UD5				
			Depth (m)	.	.				
			Sample Type	Water(GW/SW)	Water(GW/SW)				
			Date Sampled	17/10/2014	17/10/2014				
			Sampled Time	.	.				
			Date Received	18/10/2014	18/10/2014				
			SDG Ref	141018-10	141018-10				
			Lab Sample No.(s)	10209497	10209502				
			AGS Reference						
Phenoxyacetic acid (PAA)	<0.031 µg/l	TM186		0.0326 ♦ #	<0.136 ♦ #				
Dicamba	<0.033 µg/l	TM186		<0.033 ♦ #	<0.033 ♦ #				
Phenoxypropionic acid (PPA)	<0.023 µg/l	TM186		<0.023	<0.023				
4-Chlorophenoxyacetic acid (4-CPA)	<0.037 µg/l	TM186		<0.037 ♦ #	<0.037 ♦ #				
4-Phenoxybutyric acid	<0.019 µg/l	TM186		<0.0241 ♦ #	<0.0338 ♦ #				
Bentazone	<0.018 µg/l	TM186		<0.018 ♦ #	<0.018 ♦ #				
Bromoxynil	<0.022 µg/l	TM186		<0.022	<0.022				
2,4-Dichlorophenoxy acetic acid (2,4-D)	<0.026 µg/l	TM186		<0.026 ♦ #	<0.026 ♦ #				
2-methyl-4-Chlorophenoxy acetic acid (MCPA)	<0.03 µg/l	TM186		<0.03 ♦ #	<0.0469 ♦ #				
2-methyl-4,6-Dinitrophenol	<0.041 µg/l	TM186		<0.041	<0.041				
Triclopyr	<0.022 µg/l	TM186		<0.022 ♦ #	<0.022 ♦ #				
Ioxynil	<0.017 µg/l	TM186		<0.017	<0.017				
2,4-Dichlorophenoxy propanoic acid (2,4-DP)	<0.015 µg/l	TM186		<0.015 ♦ #	<0.0206 ♦ #				
2,4,5-Trichlorophenol (2,4,5-T)	<0.029 µg/l	TM186		<0.029 ♦ #	<0.029 ♦ #				
Mecoprop (MCPP)	<0.025 µg/l	TM186		<0.025	0.0584				
4-(2,4-Dichlorophenoxy) butyric acid (2,4-DB)	<0.022 µg/l	TM186		<0.0239 ♦ #	<0.0326 ♦ #				
4-(4-Chloro-o-tolyloxy) butyric acid (MCPB)	<0.029 µg/l	TM186		<0.029 ♦	<0.029 ♦				
2-(2,4,5-Trichlorophenoxy) proprionic acid	<0.024 µg/l	TM186		<0.024 ♦ #	<0.024 ♦ #				
Dinoseb	<0.027 µg/l	TM186		<0.027	<0.027				
Pentachlorophenol	<0.032 µg/l	TM186		<0.032	<0.032				

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	Cell 5 Sump	Cell 6 Sump	Cell 7 Sump	Cell 1/2 Sump	Cell 3/4 Sump
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209499	10209507	10209508	10209493	10209494	10209509
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	21 #	<3 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		<7 #	<7 #	<7 #	<7 #	<7 #	<7 #
Toluene	<4 µg/l	TM245		<4 #	<4 #	<4 #	<4 #	<4 #	<4 #
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	<8 #	<8 #	<8 #	<8 #
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	<28	<28	<28	<28
EPH (C6-C10)	<100 µg/l	TM245		<100	<100	<100	<100	<100	<100

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Depth (m)	Sample Type	Date Sampled	Sampled Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			Leachate Holding Laggon	.	Water(GW/SW)	17/10/2014	.	18/10/2014	141018-10	10209496	
			NACW228	.	Water(GW/SW)	17/10/2014	.	18/10/2014	141018-10	10209498	
			NACW229	.	Water(GW/SW)	17/10/2014	.	18/10/2014	141018-10	10209500	
			SW201	.	Water(GW/SW)	17/10/2014	.	18/10/2014	141018-10	10209503	
			SW202	.	Water(GW/SW)	17/10/2014	.	18/10/2014	141018-10	10209510	
			SW203	.	Water(GW/SW)	17/10/2014	.	18/10/2014	141018-10	10209501	
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245	<3 #		<3 #		<3 #		<3 #		<3 #
Benzene	<7 µg/l	TM245	<7 #		<7 #		<7 #		<7 #		<7 #
Toluene	<4 µg/l	TM245	<4 #		<4 #		<4 #		<4 #		<4 #
Ethylbenzene	<5 µg/l	TM245	<5 #		<5 #		<5 #		<5 #		<5 #
m,p-Xylene	<8 µg/l	TM245	<8 #		<8 #		<8 #		<8 #		<8 #
o-Xylene	<3 µg/l	TM245	<3 #		<3 #		<3 #		<3 #		<3 #
Sum of detected BTEX	<28 µg/l	TM245	<28		<28		<28		<28		<28
EPH (C6-C10)	<100 µg/l	TM245	<100		<100		<100		<100		<100

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW204	SW205	SW206	SW207	UD1	UD3
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209514	10209495	10209504	10209511	10209506	10209505
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		<7 #	<7 #	<7 #	<7 #	<7 #	<7 #
Toluene	<4 µg/l	TM245		<4 #	<4 #	<4 #	<4 #	<4 #	<4 #
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	<8 #	<8 #	<8 #	<8 #
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	<28	<28	<28	<28
EPH (C6-C10)	<100 µg/l	TM245		<100	<100	<100	<100	<100	<100

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	UD4	UD5				
			Depth (m)	.	.				
			Sample Type	Water(GW/SW)	Water(GW/SW)				
			Date Sampled	17/10/2014	17/10/2014				
			Sampled Time	.	.				
			Date Received	18/10/2014	18/10/2014				
			SDG Ref	141018-10	141018-10				
			Lab Sample No.(s)	10209497	10209502				
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #				
Benzene	<7 µg/l	TM245		<7 #	<7 #				
Toluene	<4 µg/l	TM245		<4 #	<4 #				
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #				
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #				
o-Xylene	<3 µg/l	TM245		<3 #	<3 #				
Sum of detected BTEX	<28 µg/l	TM245		<28	<28				
EPH (C6-C10)	<100 µg/l	TM245		<100	<100				

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

OC, OP Pesticides and Triazine Herb

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Cell 5 Sump	Cell 6 Sump	Cell 7 Sump	Cell 1/2 Sump	Cell 3/4 Sump	Leachate Holding Laggon
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209507	10209508	10209493	10209494	10209509	10209496
			AGS Reference						
Tecnazene	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Hexachlorobenzene	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Trifluralin	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
alpha-Hexachlorocyclohexane (HCH / Lindane)	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Quintozene (PCNB)	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Triallate	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
gamma-Hexachlorocyclohexane (HCH / Lindane)	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chlorothalonil	<0.01 µg/l	TM231		<0.02	<0.01	<0.02	<0.02	<0.02	<0.01
beta-Hexachlorocyclohexane (HCH / Lindane)	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Telodrin	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Isodrin	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor epoxide	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Triadimefon	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Pendimethalin	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
o,p-DDE	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulphan I	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Trans-chlordane	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
cis-Chlordane	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDE	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
o,p-TDE (DDD)	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
o,p-DDT	<0.01 µg/l	TM231		<0.01	<0.01	<0.02	<0.02	<0.02	<0.01
p,p-TDE (DDD)	<0.01 µg/l	TM231		<0.01	<0.01	<0.02	<0.02	<0.02	<0.01
Ethion	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulphan II	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDT	<0.01 µg/l	TM231		<0.01	<0.01	<0.02	<0.02	<0.02	<0.01
o,p-Methoxychlor	<0.01 µg/l	TM231		<0.01	<0.01	<0.02	<0.02	<0.02	<0.01
p,p-Methoxychlor	<0.01 µg/l	TM231		<0.01	<0.01	<0.02	<0.02	<0.02	<0.01
Endosulphan sulphate	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

OC, OP Pesticides and Triazine Herb

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Cell 5 Sump	Cell 6 Sump	Cell 7 Sump	Cell 1/2 Sump	Cell 3/4 Sump	Leachate Holding Laggon
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209507	10209508	10209493	10209494	10209509	10209496
			AGS Reference						
Permethrin I	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Permethrin II	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

OC, OP Pesticides and Triazine Herb

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW201	SW202	SW203	SW204	SW205	SW206
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209503	10209510	10209501	10209514	10209495	10209504
			AGS Reference						
Tecnazene	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Hexachlorobenzene	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Trifluralin	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
alpha-Hexachlorocyclohexane (HCH / Lindane)	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Quintozene (PCNB)	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Triallate	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
gamma-Hexachlorocyclohexane (HCH / Lindane)	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chlorothalonil	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
beta-Hexachlorocyclohexane (HCH / Lindane)	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Telodrin	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Isodrin	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor epoxide	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Triadimefon	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Pendimethalin	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
o,p-DDE	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulphan I	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Trans-chlordane	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
cis-Chlordane	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDE	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
o,p-TDE (DDD)	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Endrin	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
o,p-DDT	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.2	<0.01	<0.2
p,p-TDE (DDD)	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethion	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Endosulphan II	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDT	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.2	<0.01	<0.2
o,p-Methoxychlor	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
p,p-Methoxychlor	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.2	<0.01	<0.2
Endosulphan sulphate	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

OC, OP Pesticides and Triazine Herb

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW201	SW202	SW203	SW204	SW205	SW206
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209503	10209510	10209501	10209514	10209495	10209504
			AGS Reference						
Permethrin I	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Permethrin II	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

OC, OP Pesticides and Triazine Herb

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW207	UD1	UD3	UD4	UD5
			Depth (m)	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209511	10209506	10209505	10209497	10209502
			AGS Reference					
Tecnazene	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
Hexachlorobenzene	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
Trifluralin	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
alpha-Hexachlorocyclohexane (HCH / Lindane)	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
Quintozene (PCNB)	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
Triallate	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
gamma-Hexachlorocyclohexane (HCH / Lindane)	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
Aldrin	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
Chlorothalonil	<0.01 µg/l	TM231		<0.02	<0.02	<0.02	<0.01	<0.01
beta-Hexachlorocyclohexane (HCH / Lindane)	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
Telodrin	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
Isodrin	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
Heptachlor epoxide	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
Triadimefon	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
Pendimethalin	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
o,p-DDE	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
Endosulphan I	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
Trans-chlordane	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
cis-Chlordane	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDE	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
Dieldrin	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
o,p-TDE (DDD)	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
Endrin	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
o,p-DDT	<0.01 µg/l	TM231		<0.02	<0.02	<0.02	<0.01	<0.01
p,p-TDE (DDD)	<0.01 µg/l	TM231		<0.02	<0.02	<0.02	<0.01	<0.01
Ethion	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
Endosulphan II	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
p,p-DDT	<0.01 µg/l	TM231		<0.02	<0.02	<0.02	<0.01	<0.01
o,p-Methoxychlor	<0.01 µg/l	TM231		<0.02	<0.02	<0.02	<0.01	<0.01
p,p-Methoxychlor	<0.01 µg/l	TM231		<0.02	<0.02	<0.02	<0.01	<0.01
Endosulphan sulphate	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

OC, OP Pesticides and Triazine Herb

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW207	UD1	UD3	UD4	UD5
			Depth (m)	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209511	10209506	10209505	10209497	10209502
			AGS Reference					
Permethrin I	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01
Permethrin II	<0.01 µg/l	TM231		<0.01	<0.01	<0.01	<0.01	<0.01

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	Cell 5 Sump	Cell 6 Sump	Cell 7 Sump	Cell 1/2 Sump	Cell 3/4 Sump
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209499	10209507	10209508	10209493	10209494	10209509
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1	<4 ♦	<1 ♦	<8	<8	<8
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	11.4 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<4	<1	<8	<8	<8
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
4-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	20.3 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<4	<1	<8	<8	<8
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Acenaphthylene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Acenaphthene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Anthracene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<2 #	46 ♦ #	9.89 ♦ #	27.4 #	98.8 #	50.7 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	Cell 5 Sump	Cell 6 Sump	Cell 7 Sump	Cell 1/2 Sump	Cell 3/4 Sump
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209499	10209507	10209508	10209493	10209494	10209509
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Carbazole (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Chrysene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<20 ♦ #	<5 ♦ #	<40 #	<40 #	<40 #
Fluoranthene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Fluorene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<4	<1	<8	<8	<8
Phenol (aq)	<1 µg/l	TM176		<1	<4	<1	<8	<8	213
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Naphthalene (aq)	<1 µg/l	TM176		<2 #	<4 ♦ #	<1 ♦ #	<16 #	<16 #	<16 #
Isophorone (aq)	<1 µg/l	TM176		<2 #	<4 ♦ #	<2 ♦ #	<16 #	<16 #	<16 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<4	<1	<8	<8	<8
Phenanthrene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #
Pyrene (aq)	<1 µg/l	TM176		<1 #	<4 ♦ #	<1 ♦ #	<8 #	<8 #	<8 #

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Leachate Holding Laggon	NACW228	NACW229	SW201	SW202	SW203
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209496	10209498	10209500	10209503	10209510	10209501
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1	<1	<1 ♦	<1	<1	<1
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		2.91 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Acenaphthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		9.41 #	<2 #	<2 ♦ #	<2 #	<2 #	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Leachate Holding Laggon	NACW228	NACW229	SW201	SW202	SW203
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209496	10209498	10209500	10209503	10209510	10209501
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Carbazole (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Chrysene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<5 #	<5 ♦ #	<5 #	<5 #	<5 #
Fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Fluorene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Naphthalene (aq)	<1 µg/l	TM176		<3 #	<2 #	<1 ♦ #	<3 #	<3 #	<3 #
Isophorone (aq)	<1 µg/l	TM176		<3 #	<2 #	<2 ♦ #	<3 #	<3 #	<3 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenanthrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #
Pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 ♦ #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW204	SW205	SW206	SW207	UD1	UD3
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209514	10209495	10209504	10209511	10209506	10209505
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 ♦	<1	<1	<4 ♦	<1 ♦	<1 ♦
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
2-Methylphenol (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<1	<1	<4	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
4-Methylphenol (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<4	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Acenaphthylene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Acenaphthene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Anthracene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<2 ♦ #	<2 #	<2 #	8.48 ♦ #	<2 ♦ #	<2 ♦ #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW204	SW205	SW206	SW207	UD1	UD3
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209514	10209495	10209504	10209511	10209506	10209505
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Carbazole (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Chrysene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Dibenzofuran (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 ♦ #	<5 #	<5 #	<20 ♦ #	<5 ♦ #	<5 ♦ #
Fluoranthene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Fluorene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<4	<1	<1
Phenol (aq)	<1 µg/l	TM176		<1	<1	<1	<4	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Hexachloroethane (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Nitrobenzene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Naphthalene (aq)	<1 µg/l	TM176		<3 ♦ #	<3 #	<3 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Isophorone (aq)	<1 µg/l	TM176		<2 ♦ #	<3 #	<3 #	<4 ♦ #	<2 ♦ #	<2 ♦ #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<1	<1	<4	<1	<1
Phenanthrene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #
Pyrene (aq)	<1 µg/l	TM176		<1 ♦ #	<1 #	<1 #	<4 ♦ #	<1 ♦ #	<1 ♦ #

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	UD4	UD5			
			Depth (m)	.	.			
			Sample Type	Water(GW/SW)	Water(GW/SW)			
			Date Sampled	17/10/2014	17/10/2014			
			Sampled Time	.	.			
			Date Received	18/10/2014	18/10/2014			
			SDG Ref	141018-10	141018-10			
			Lab Sample No.(s)	10209497	10209502			
			AGS Reference					
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1	<1 ♦			
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<1			
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
4-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<1			
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Acenaphthylene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Acenaphthene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Anthracene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<2 #	<2 ♦ #			
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	UD4	UD5			
			Depth (m)	.	.			
			Sample Type	Water(GW/SW)	Water(GW/SW)			
			Date Sampled	17/10/2014	17/10/2014			
			Sampled Time	.	.			
			Date Received	18/10/2014	18/10/2014			
			SDG Ref	141018-10	141018-10			
			Lab Sample No.(s)	10209497	10209502			
			AGS Reference					
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Carbazole (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Chrysene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<5 ♦ #			
Fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Fluorene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<1			
Phenol (aq)	<1 µg/l	TM176		<1	<1			
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Naphthalene (aq)	<1 µg/l	TM176		<2 #	<1 ♦ #			
Isophorone (aq)	<1 µg/l	TM176		<2 #	<2 ♦ #			
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<1			
Phenanthrene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			
Pyrene (aq)	<1 µg/l	TM176		<1 #	<1 ♦ #			

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	Cell 5 Sump	Cell 6 Sump	Cell 7 Sump	Cell 1/2 Sump	Cell 3/4 Sump
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209499	10209507	10209508	10209493	10209494	10209509
			AGS Reference						
Dibromofluoromethane**	%	TM208		102	19.9	14.6	33.8 1	16.4	96.7
Toluene-d8**	%	TM208		101	88	86.2	68.1 1	88.9	101
4-Bromofluorobenzene**	%	TM208		99.4	111	109	147 1	104	98.8
Dichlorodifluoromethane	<1 µg/l	TM208		<1	<1	<1	<1 1	<1	<1
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	2.62 #	2.01 #	1.15 1 #	1.45 #	2.63 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 1 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1 1	<1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		4.39 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1	<1 1	<1	<1
Benzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		3.39 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		<1 #	3.65 #	2.32 #	1.29 1 #	1.88 #	4.76 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	Cell 5 Sump	Cell 6 Sump	Cell 7 Sump	Cell 1/2 Sump	Cell 3/4 Sump
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209499	10209507	10209508	10209493	10209494	10209509
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		2.13 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		<1 #	1.76 #	1.21 #	<1 1 #	<1 #	2.58 #
m,p-Xylene	<1 µg/l	TM208		<1 #	3.3 #	2.21 #	1.95 1 #	1.62 #	3.53 #
o-Xylene	<1 µg/l	TM208		<1 #	2.29 #	1.59 #	1.52 1 #	1.16 #	2.49 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1	<1 1	<1	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	1.09 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1 1	<1	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1 1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH3/9	Cell 5 Sump	Cell 6 Sump	Cell 7 Sump	Cell 1/2 Sump	Cell 3/4 Sump
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209499	10209507	10209508	10209493	10209494	10209509
			AGS Reference						
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1 1	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Leachate Holding Laggon	NACW228	NACW229	SW201	SW202	SW203
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209496	10209498	10209500	10209503	10209510	10209501
			AGS Reference						
Dibromofluoromethane**	%	TM208		100	102	117	112	111	111
Toluene-d8**	%	TM208		91	101	99.4	100	100	99.7
4-Bromofluorobenzene**	%	TM208		101	101	95.5	98.2	98	97.6
Dichlorodifluoromethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		6.04 #	<1 #	<1 #	4.07 #	4.91 #	1.47 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Benzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	2.68 #	2.99 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Leachate Holding Laggon	NACW228	NACW229	SW201	SW202	SW203
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209496	10209498	10209500	10209503	10209510	10209501
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	1.56 #	1.39 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	Leachate Holding Laggon	NACW228	NACW229	SW201	SW202	SW203
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209496	10209498	10209500	10209503	10209510	10209501
			AGS Reference						
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW204	SW205	SW206	SW207	UD1	UD3
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209514	10209495	10209504	10209511	10209506	10209505
			AGS Reference						
Dibromofluoromethane**	%	TM208		113	113	113	110	105	109
Toluene-d8**	%	TM208		99.6	99.6	101	99.7	102	98.1
4-Bromofluorobenzene**	%	TM208		97.8	97.8	99.2	98.4	101	96.4
Dichlorodifluoromethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		4.98 #	4.58 #	1.48 #	4.29 #	<1 #	1.33 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Benzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		3.42 #	2.89 #	<1 #	2.59 #	<1 #	1.08 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
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1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW204	SW205	SW206	SW207	UD1	UD3
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209514	10209495	10209504	10209511	10209506	10209505
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		1.62 #	1.5 #	<1 #	1.32 #	<1 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	SW204	SW205	SW206	SW207	UD1	UD3
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014	17/10/2014
			Sampled Time	.	.	.	.	.	.
			Date Received	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10	141018-10	141018-10	141018-10	141018-10
			Lab Sample No.(s)	10209514	10209495	10209504	10209511	10209506	10209505
			AGS Reference						
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	UD4	UD5				
			Depth (m)	.	.				
			Sample Type	Water(GW/SW)	Water(GW/SW)				
			Date Sampled	17/10/2014	17/10/2014				
			Sampled Time	.	.				
			Date Received	18/10/2014	18/10/2014				
			SDG Ref	141018-10	141018-10				
			Lab Sample No.(s)	10209497	10209502				
			AGS Reference						
Dibromofluoromethane**	%	TM208		113	105				
Toluene-d8**	%	TM208		99.1	101				
4-Bromofluorobenzene**	%	TM208		96.1	102				
Dichlorodifluoromethane	<1 µg/l	TM208		<1	<1				
Chloromethane	<1 µg/l	TM208		<1 #	<1 #				
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #				
Bromomethane	<1 µg/l	TM208		<1 #	<1 #				
Chloroethane	<1 µg/l	TM208		<1 #	<1 #				
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #				
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #				
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #				
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #				
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #				
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #				
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #				
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #				
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1				
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #				
Chloroform	<1 µg/l	TM208		<1 #	<1 #				
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #				
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #				
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #				
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1				
Benzene	<1 µg/l	TM208		<1 #	<1 #				
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #				
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #				
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #				
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #				
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #				
Toluene	<1 µg/l	TM208		<1 #	<1 #				
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #				
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #				

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

VOC MS (W)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	UD4	UD5
			Depth (m)	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)
			Date Sampled	17/10/2014	17/10/2014
			Sampled Time	.	.
			Date Received	18/10/2014	18/10/2014
			SDG Ref	141018-10	141018-10
			Lab Sample No.(s)	10209497	10209502
			AGS Reference		
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #
o-Xylene	<1 µg/l	TM208		<1 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
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#	ISO17025 accredited.
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Component	LOD/Units	Method	Customer Sample R	UD4	UD5			
			Depth (m)	.	.			
			Sample Type	Water(GW/SW)	Water(GW/SW)			
			Date Sampled	17/10/2014	17/10/2014			
			Sampled Time	.	.			
			Date Received	18/10/2014	18/10/2014			
			SDG Ref	141018-10	141018-10			
			Lab Sample No.(s)	10209497	10209502			
			AGS Reference					
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #			
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1			

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
Calulation				
SUB		Subcontracted Test		
TM022	Method 2540D, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part120 1981;BS EN 872	Determination of total suspended solids in waters		
TM043	Method 2320B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part109 1984	Determination of alkalinity in aqueous samples		
TM045	MEWAM BOD5 2nd Ed.HMSO 1988 / Method 5210B, AWWA/APHA, 20th Ed., 1999; SCA Blue Book 130	Determination of BOD5 (ATU) Filtered by Oxygen Meter on liquids		
TM061	Method for the Determination of EPH,Massachusetts Dept.of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)		
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM107	ISO 6060-1989	Determination of Chemical Oxygen Demand using COD Dr Lange Kit		
TM120	Method 2510B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part 9:1970	Determination of Electrical Conductivity using a Conductivity Meter		
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS		
TM172	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	EPH in Waters		
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS		
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM186	Determination of Acidic Herbicides in Groundwater and Potable Water by LC/MSD Using Selective Ion Monitoring. Agilent Technologies Inc. Application Note 5988-5882EN.	The Determination of Acid Herbicides in Environmental Water Samples and Leachates by LC/MS QQQ.		
TM197	Modified: US EPA Method 8082.EA Method 174 and 5109631	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Waters		
TM205		Determination of Phenols in Waste Waters using Solid Phase Extraction, Acetylation, Gas Chromatography and Mass Selective Detection		
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters		
TM228	US EPA Method 6010B	Determination of Major Cations in Water by iCap 6500 Duo ICP-OES		
TM231	Agilent 6890 Gas Chromatograph system using an Agilent 5973 Mass Selective Detector (MSD)	Determination of Organochlorine and Organophosphorus Pesticides and Triazine Herbicides by GCMS		
TM245	By GC-FID	Determination of GRO by Headspace in waters		
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter		
TM324		Analysis of Acid Herbicides in Aqueous Sample by LCQQQ		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	10209499	10209507	10209508	10209493	10209494	10209509	10209496	10209498	10209500	10209503
Customer Sample Ref.	BH3/9	Cell 5 Sump	Cell 6 Sump	Cell 7 Sump	Cell 1/2 Sump	Cell 3/4 Sump	Leachate Holding Laggon	NACW228	NACW229	SW201
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Acid Herbicides (W)	17-Nov-2014	18-Nov-2014	18-Nov-2014	18-Nov-2014	18-Nov-2014	18-Nov-2014	18-Nov-2014	17-Nov-2014	17-Nov-2014	
Alkalinity as CaCO3	29-Oct-2014	27-Oct-2014	29-Oct-2014	29-Oct-2014	29-Oct-2014	29-Oct-2014	29-Oct-2014	22-Oct-2014	27-Oct-2014	02-Nov-2014
Alkalinity Filtered as CaCO3	02-Dec-2014	31-Oct-2014	30-Oct-2014	30-Oct-2014	31-Oct-2014	30-Oct-2014	31-Oct-2014	28-Oct-2014	28-Oct-2014	31-Oct-2014
Ammoniacal Nitrogen	24-Oct-2014	29-Oct-2014	29-Oct-2014	24-Oct-2014	29-Oct-2014	29-Oct-2014	24-Oct-2014	21-Oct-2014	24-Oct-2014	29-Oct-2014
Anions by Kone (w)	30-Oct-2014	30-Oct-2014	30-Oct-2014	31-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	31-Oct-2014	30-Oct-2014	03-Nov-2014
BOD True Total	23-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014
COD Unfiltered	24-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014
Conductivity (at 20 deg.C)	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	27-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	31-Oct-2014
Dissolved Metals by ICP-MS	30-Oct-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014	30-Oct-2014	30-Oct-2014	31-Oct-2014
EPH (DRO) (C10-C40) Aqueous (W)	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014
GRO by GC-FID (W)	31-Oct-2014	02-Nov-2014	02-Nov-2014	02-Nov-2014	02-Nov-2014	02-Nov-2014	02-Nov-2014	31-Oct-2014	02-Nov-2014	02-Nov-2014
Ionic Balance	30-Oct-2014	31-Oct-2014	30-Oct-2014	31-Oct-2014	31-Oct-2014	30-Oct-2014	31-Oct-2014	31-Oct-2014	30-Oct-2014	03-Nov-2014
Mercury Dissolved	23-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	29-Oct-2014
Metals by iCap-OES Dissolved (W)	24-Oct-2014	29-Oct-2014	28-Oct-2014	29-Oct-2014	29-Oct-2014	28-Oct-2014	29-Oct-2014	21-Oct-2014	21-Oct-2014	29-Oct-2014
Nitrite by Kone (w)	22-Oct-2014	22-Oct-2014	22-Oct-2014	22-Oct-2014	22-Oct-2014	22-Oct-2014	22-Oct-2014	21-Oct-2014	21-Oct-2014	27-Oct-2014
OC, OP Pesticides and Triazine Herb		30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014			30-Oct-2014
PCB Congeners - Aqueous (W)		03-Nov-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014			03-Nov-2014
pH Value	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	29-Oct-2014
Phenols by ms (w)	31-Oct-2014	04-Nov-2014	04-Nov-2014	04-Nov-2014	04-Nov-2014	04-Nov-2014	04-Nov-2014	04-Nov-2014	04-Nov-2014	04-Nov-2014
Suspended Solids	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014
SVOC MS (W) - Aqueous	31-Oct-2014	03-Nov-2014	03-Nov-2014	31-Oct-2014	31-Oct-2014	31-Oct-2014	30-Oct-2014	31-Oct-2014	03-Nov-2014	30-Oct-2014
Total EPH (aq)	03-Nov-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014	04-Nov-2014
Total Organic and Inorganic Carbon	24-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	24-Oct-2014	27-Oct-2014	27-Oct-2014
VOC MS (W)	30-Oct-2014	02-Nov-2014	02-Nov-2014	02-Nov-2014	02-Nov-2014	31-Oct-2014	31-Oct-2014	30-Oct-2014	31-Oct-2014	01-Nov-2014

Lab Sample No(s)	10209510	10209501	10209514	10209495	10209504	10209511	10209506	10209505	10209497	10209502
Customer Sample Ref.	SW202	SW203	SW204	SW205	SW206	SW207	UD1	UD3	UD4	UD5
AGS Ref.										
Depth										
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Acid Herbicides (W)			27-Nov-2014				18-Nov-2014	18-Nov-2014	18-Nov-2014	27-Nov-2014
Alkalinity as CaCO3	02-Nov-2014	02-Nov-2014	02-Nov-2014	02-Nov-2014	31-Oct-2014	02-Nov-2014	27-Oct-2014	27-Oct-2014	22-Oct-2014	29-Oct-2014
Alkalinity Filtered as CaCO3	29-Oct-2014	29-Oct-2014	29-Oct-2014	31-Oct-2014	02-Dec-2014	31-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014
Ammoniacal Nitrogen	29-Oct-2014	27-Oct-2014	29-Oct-2014	27-Oct-2014	27-Oct-2014	27-Oct-2014	24-Oct-2014	24-Oct-2014	21-Oct-2014	21-Oct-2014
Anions by Kone (w)	31-Oct-2014	31-Oct-2014	31-Oct-2014	31-Oct-2014	31-Oct-2014	03-Nov-2014	31-Oct-2014	30-Oct-2014	30-Oct-2014	29-Oct-2014
BOD True Total	23-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014	25-Oct-2014	25-Oct-2014	25-Oct-2014	25-Oct-2014
COD Unfiltered	23-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014	23-Oct-2014	26-Oct-2014	26-Oct-2014	26-Oct-2014	26-Oct-2014
Conductivity (at 20 deg.C)	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	31-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014
Dissolved Metals by ICP-MS	30-Oct-2014	30-Oct-2014	30-Oct-2014	04-Nov-2014	30-Oct-2014	31-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014
EPH (DRO) (C10-C40) Aqueous (W)	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014
GRO by GC-FID (W)	02-Nov-2014	02-Nov-2014	02-Nov-2014	02-Nov-2014	02-Nov-2014	02-Nov-2014	31-Oct-2014	02-Nov-2014	02-Nov-2014	31-Oct-2014
Ionic Balance	31-Oct-2014	31-Oct-2014	31-Oct-2014	31-Oct-2014	31-Oct-2014	03-Nov-2014	31-Oct-2014	30-Oct-2014	30-Oct-2014	29-Oct-2014
Mercury Dissolved	29-Oct-2014	29-Oct-2014	29-Oct-2014	29-Oct-2014	29-Oct-2014	29-Oct-2014	24-Oct-2014	23-Oct-2014	24-Oct-2014	23-Oct-2014
Metals by iCap-OES Dissolved (W)	30-Oct-2014	30-Oct-2014	30-Oct-2014	28-Oct-2014	28-Oct-2014	29-Oct-2014	21-Oct-2014	21-Oct-2014	21-Oct-2014	21-Oct-2014
Nitrite by Kone (w)	30-Oct-2014	27-Oct-2014	30-Oct-2014	27-Oct-2014	27-Oct-2014	30-Oct-2014	22-Oct-2014	22-Oct-2014	21-Oct-2014	22-Oct-2014
OC, OP Pesticides and Triazine Herb	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014
PCB Congeners - Aqueous (W)	03-Nov-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014
pH Value	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	29-Oct-2014	30-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014	28-Oct-2014
Phenols by ms (w)	05-Nov-2014	05-Nov-2014	05-Nov-2014	04-Nov-2014	05-Nov-2014	05-Nov-2014	04-Nov-2014	31-Oct-2014	31-Oct-2014	31-Oct-2014
Suspended Solids	03-Nov-2014	03-Nov-2014	03-Nov-2014	23-Oct-2014	23-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014	30-Oct-2014
SVOC MS (W) - Aqueous	30-Oct-2014	30-Oct-2014	03-Nov-2014	30-Oct-2014	30-Oct-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014	31-Oct-2014	03-Nov-2014
Total EPH (aq)	04-Nov-2014	04-Nov-2014	04-Nov-2014	04-Nov-2014	04-Nov-2014	04-Nov-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014	03-Nov-2014
Total Organic and Inorganic Carbon	24-Oct-2014	23-Oct-2014	27-Oct-2014	27-Oct-2014	24-Oct-2014	27-Oct-2014	24-Oct-2014	24-Oct-2014	24-Oct-2014	27-Oct-2014
VOC MS (W)	02-Nov-2014	02-Nov-2014	02-Nov-2014	02-Nov-2014	01-Nov-2014	01-Nov-2014	30-Oct-2014	31-Oct-2014	31-Oct-2014	30-Oct-2014

CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

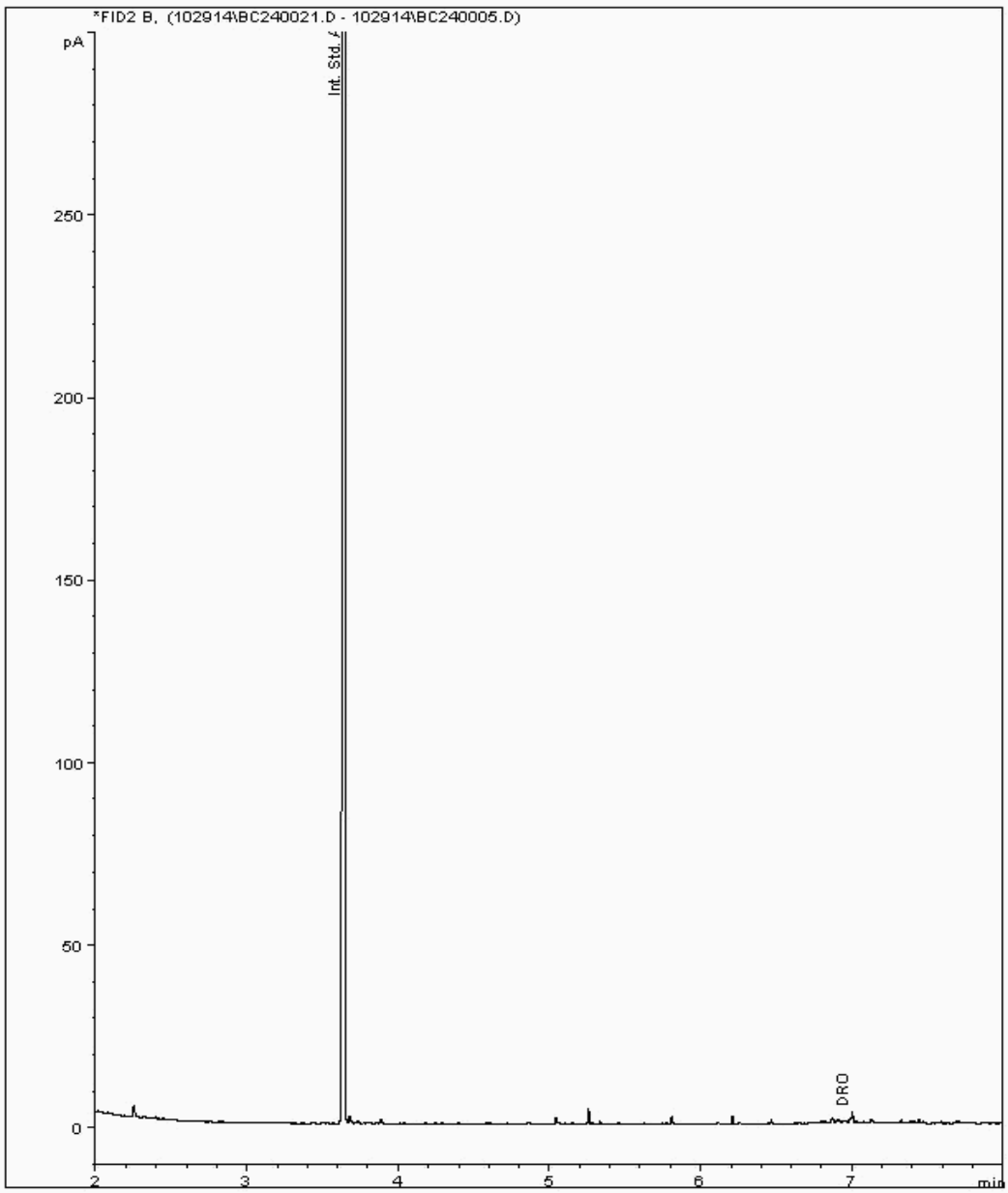
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10218601
Sample ID : BH3/9

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9718963-10218601
Date Acquired : 29/10/2014 23:25:46 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

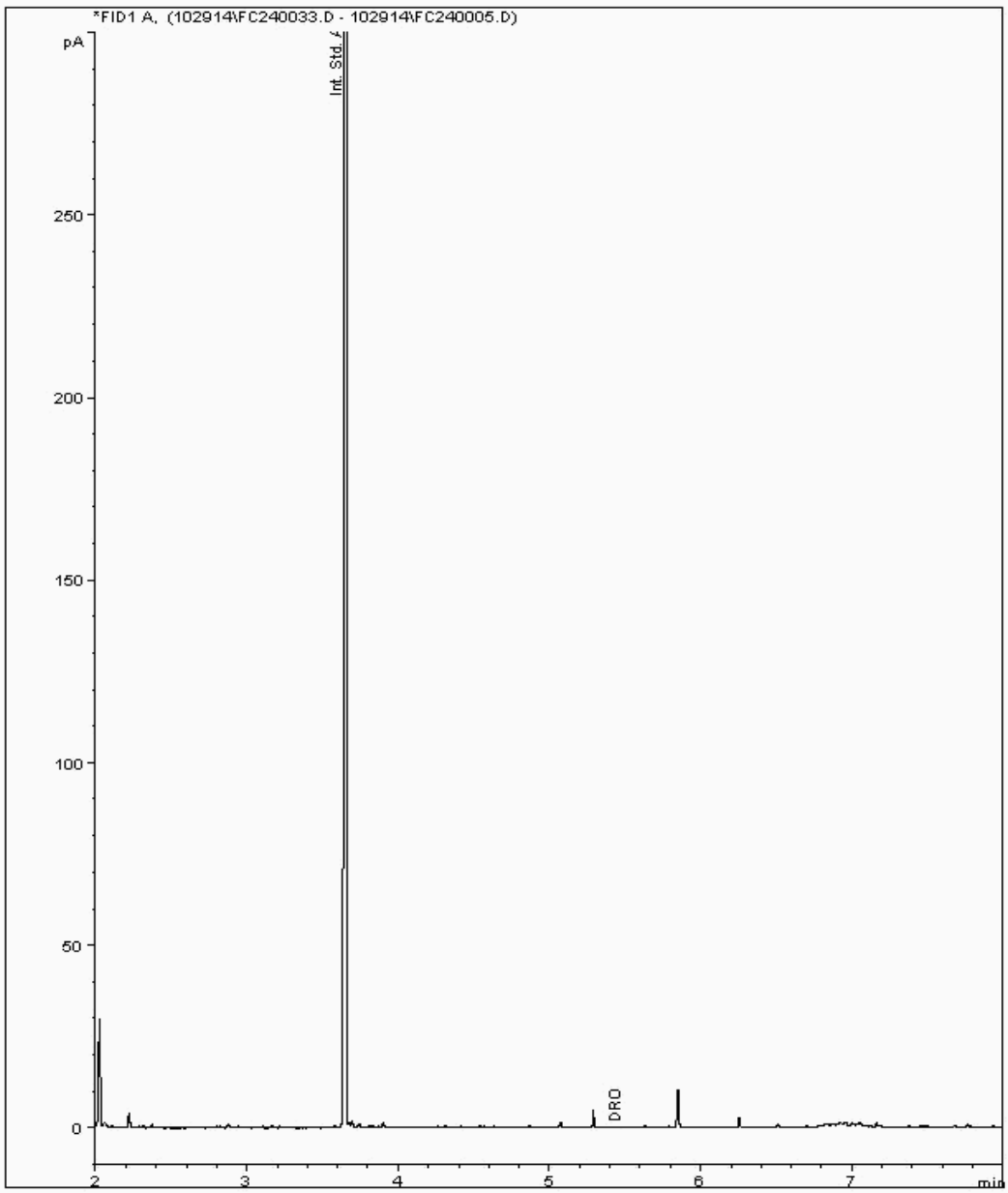
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10218826
Sample ID : UD3

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9719132-10218826
Date Acquired : 30/10/2014 03:48:37 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

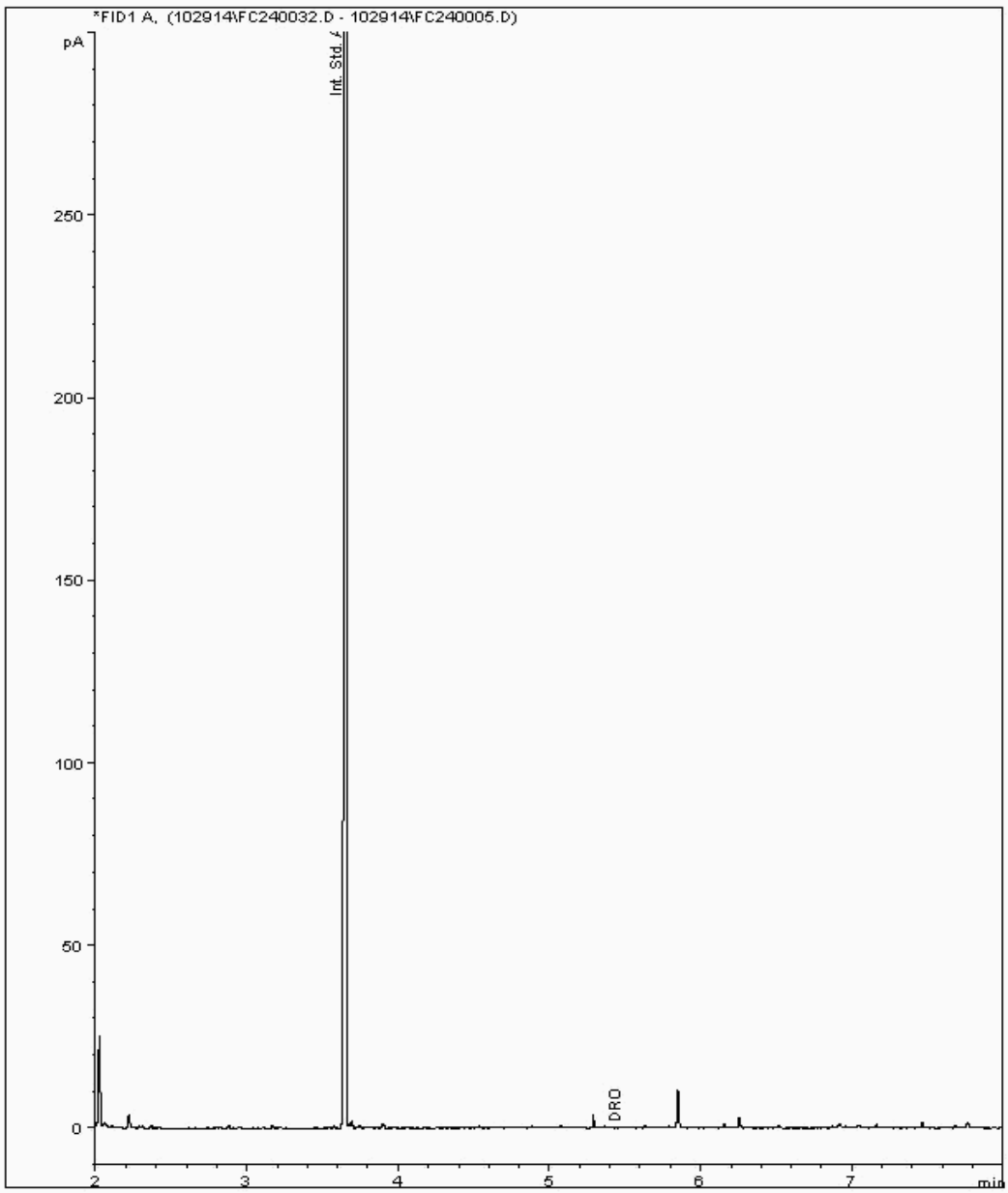
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10218856
Sample ID : UD5

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9719096-10218856
Date Acquired : 30/10/2014 03:26:51 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

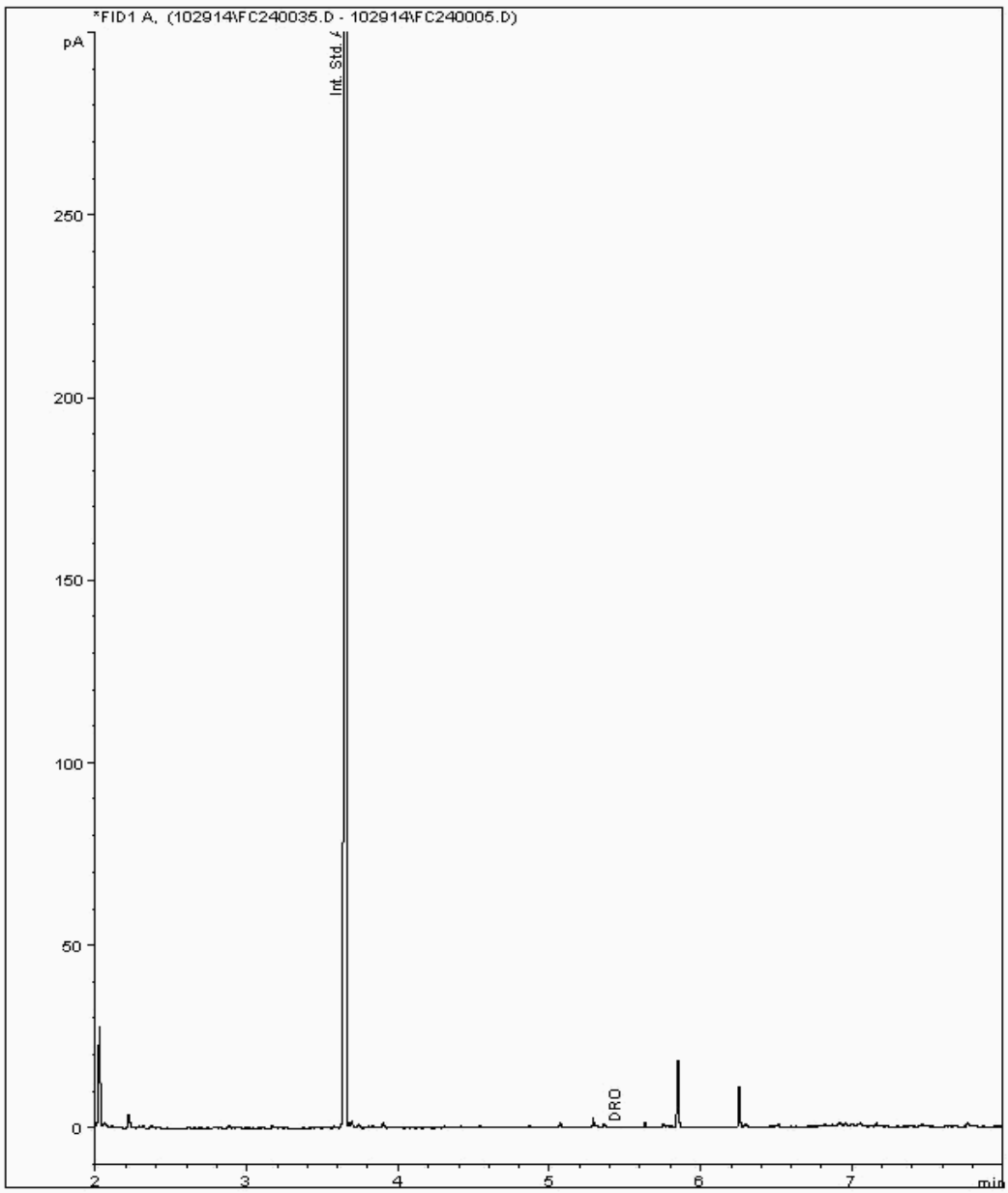
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10234849
Sample ID : UD4

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9719019-10234849
Date Acquired : 30/10/2014 04:32:28 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

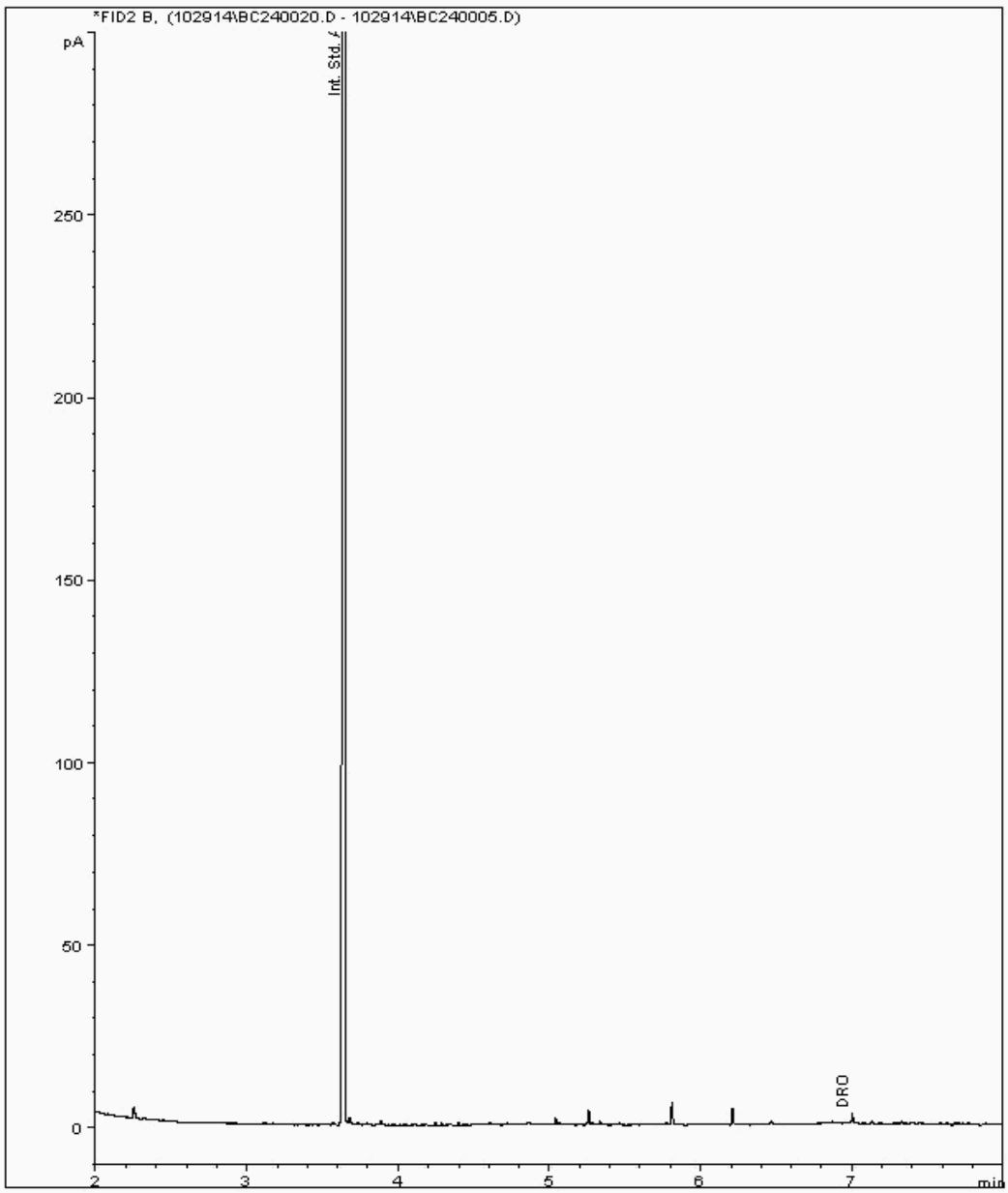
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10234937
Sample ID : NACW229

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9718990-10234937
Date Acquired : 29/10/2014 23:03:53 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

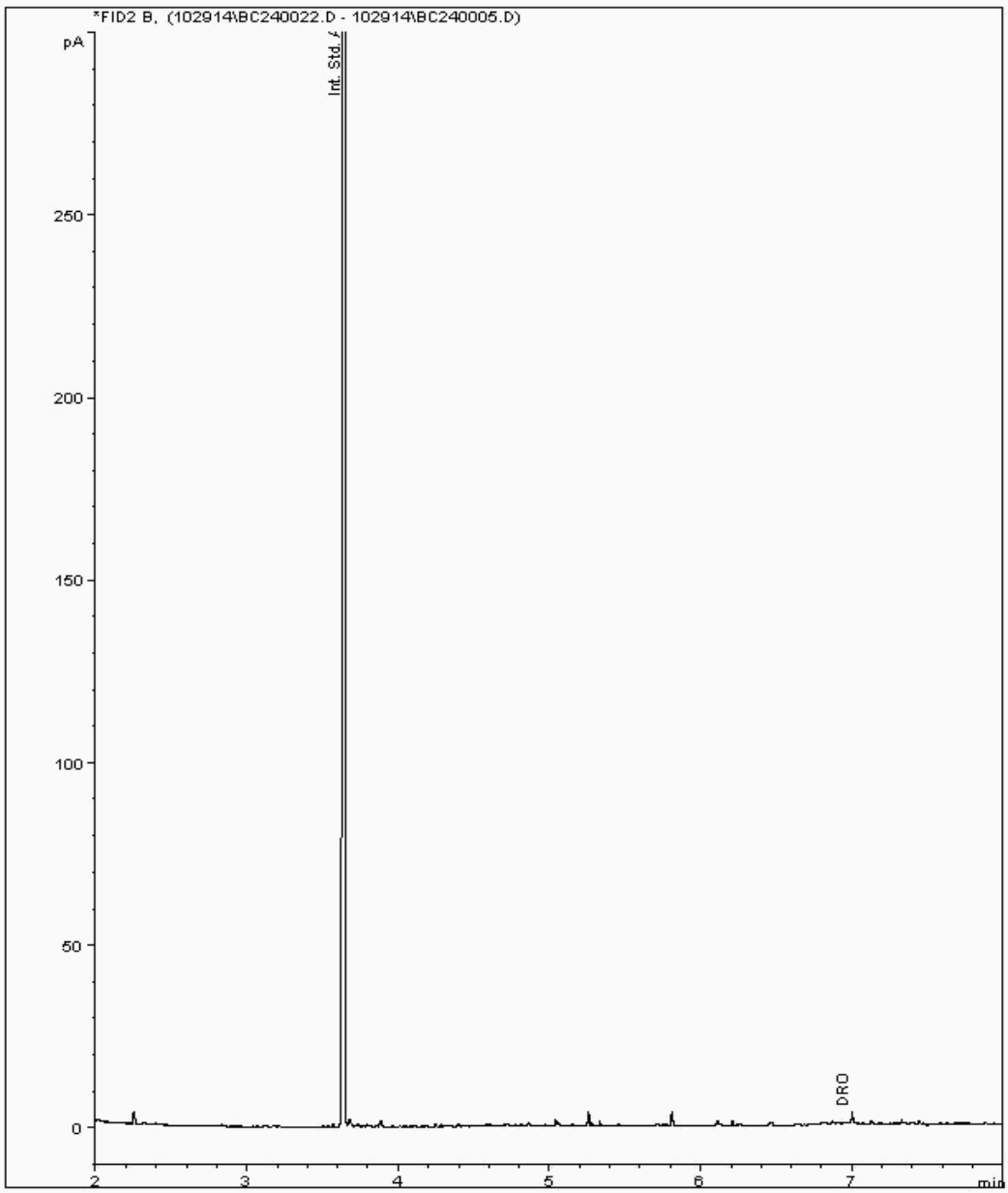
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10235012
Sample ID : NACW228

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9718933-10235012
Date Acquired : 29/10/2014 23:47:51 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

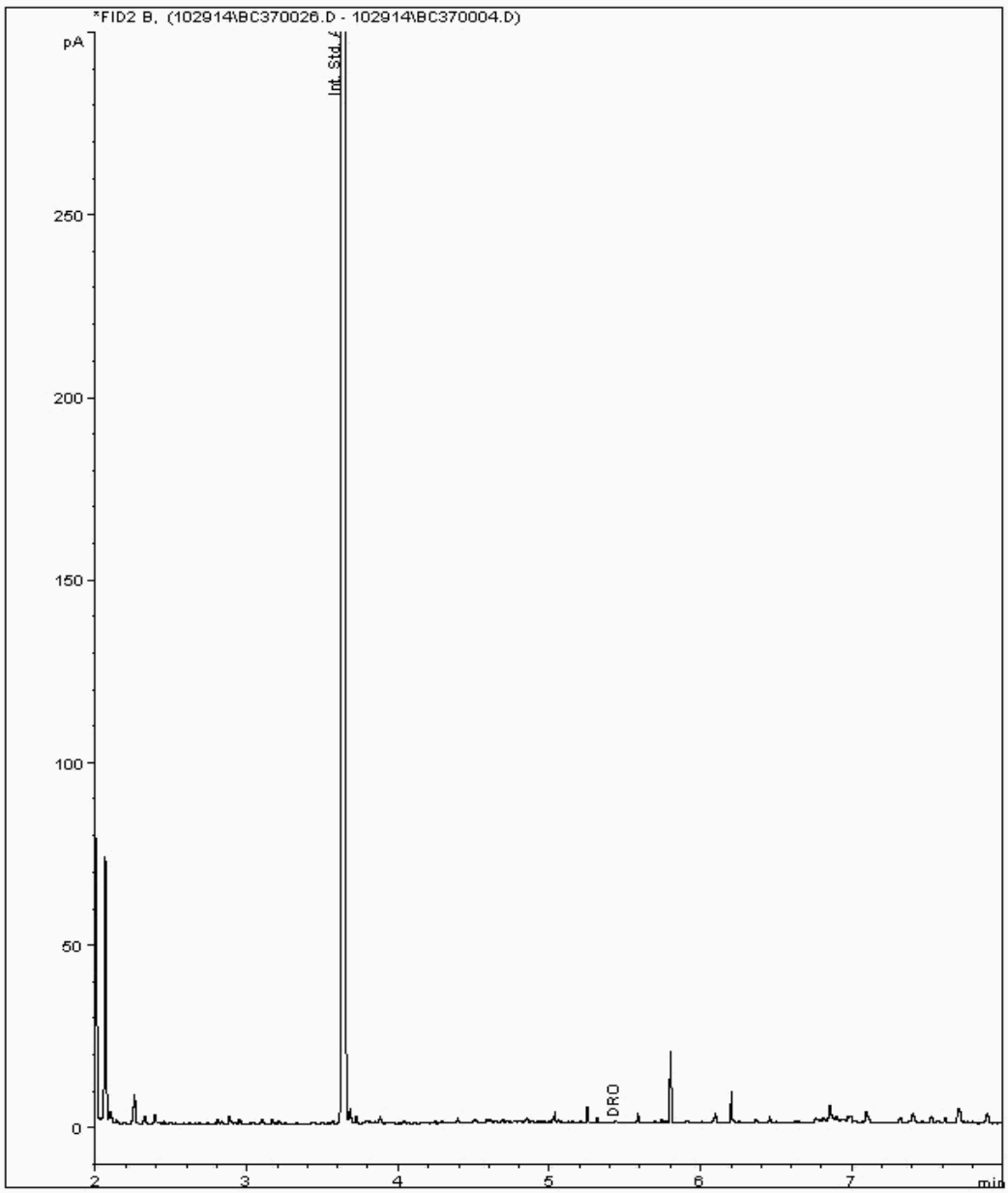
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10235049
Sample ID : SW202

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9723382-10235049
Date Acquired : 30/10/2014 13:12:20 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

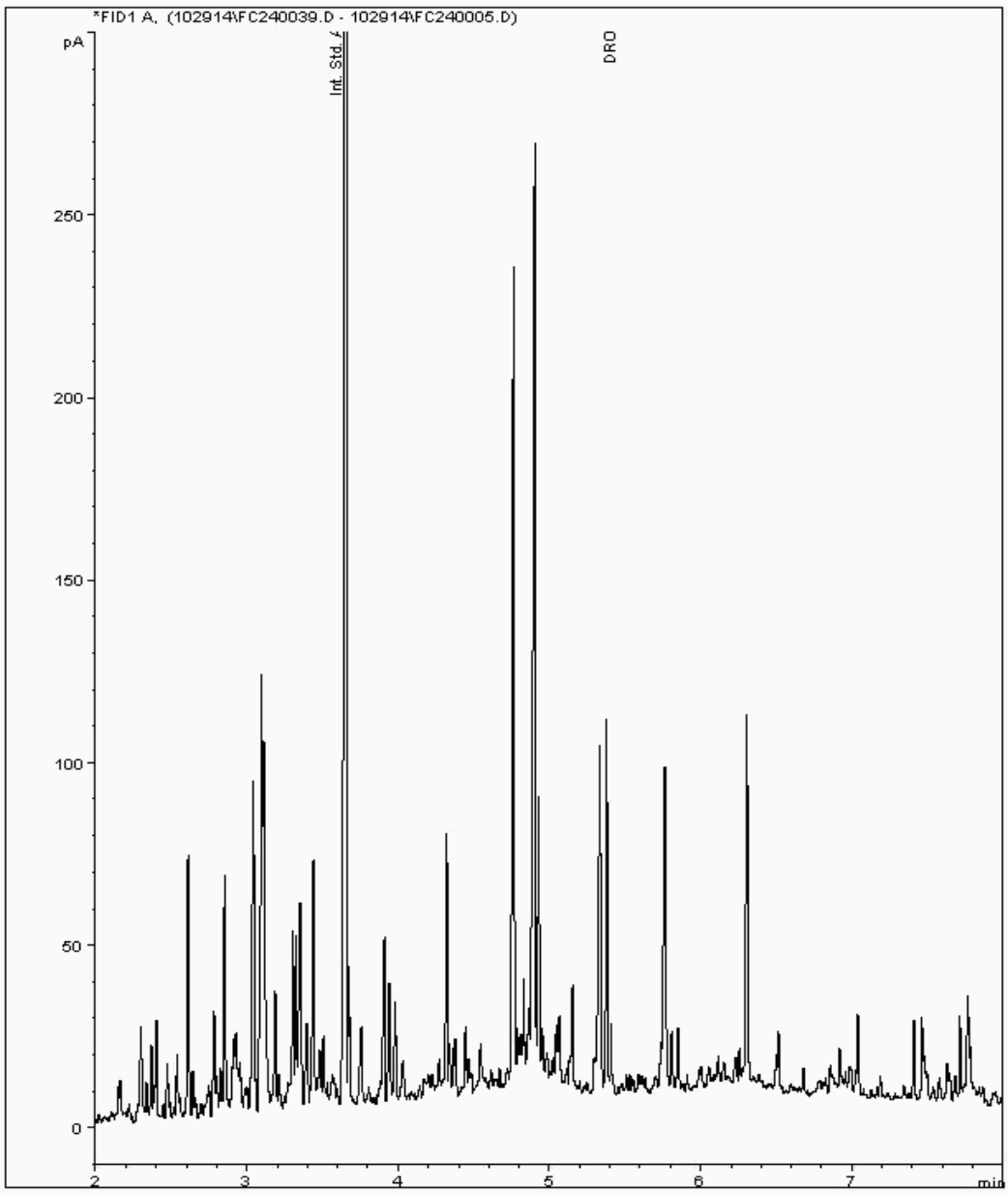
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10235206
Sample ID : Cell 6 Sump

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9718734-10235206
Date Acquired : 30/10/2014 05:59:58 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

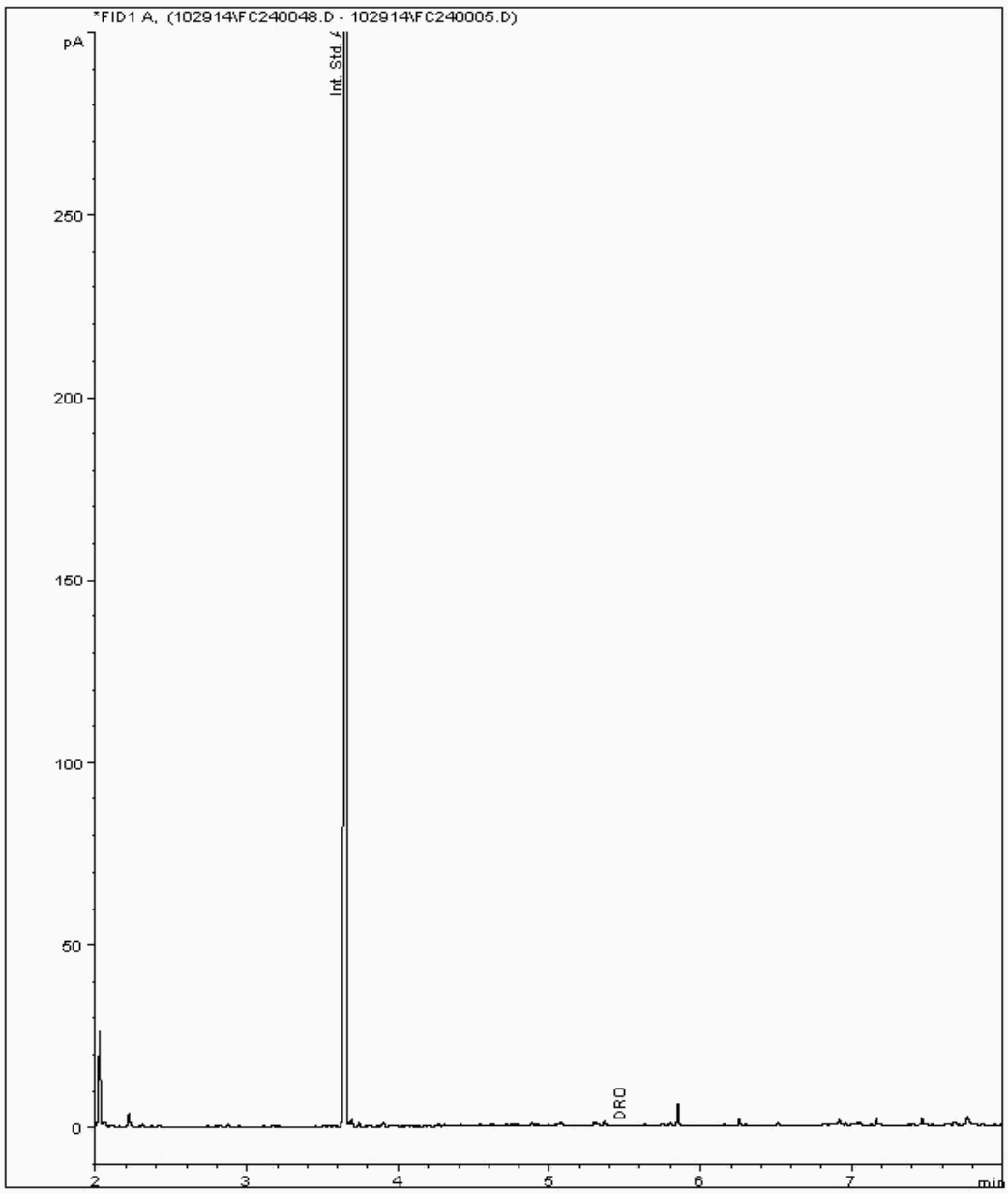
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10235244
Sample ID : SW201

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9723334-10235244
Date Acquired : 30/10/2014 09:18:27 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

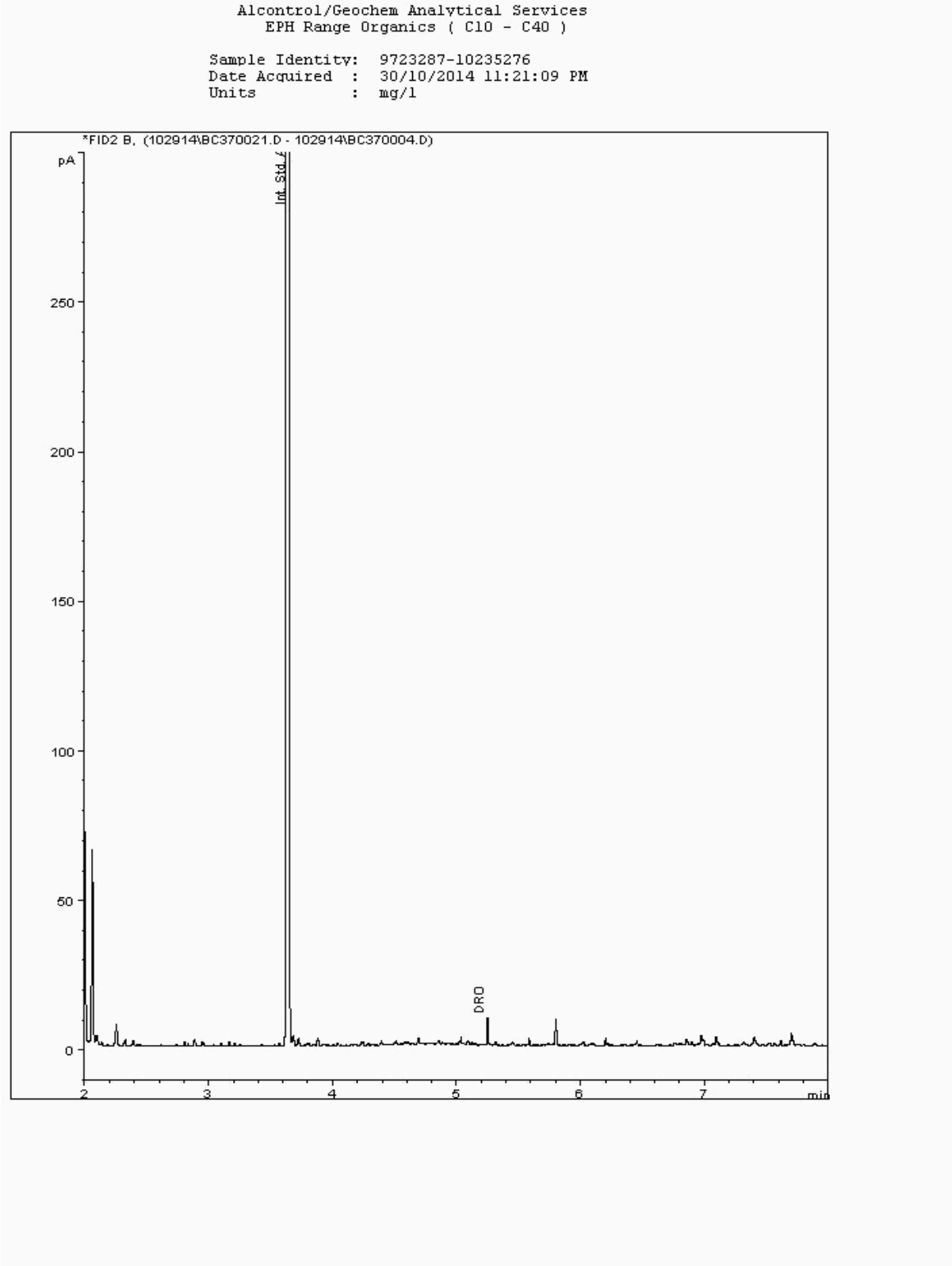
SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10235276
Sample ID : SW205

Depth :



CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

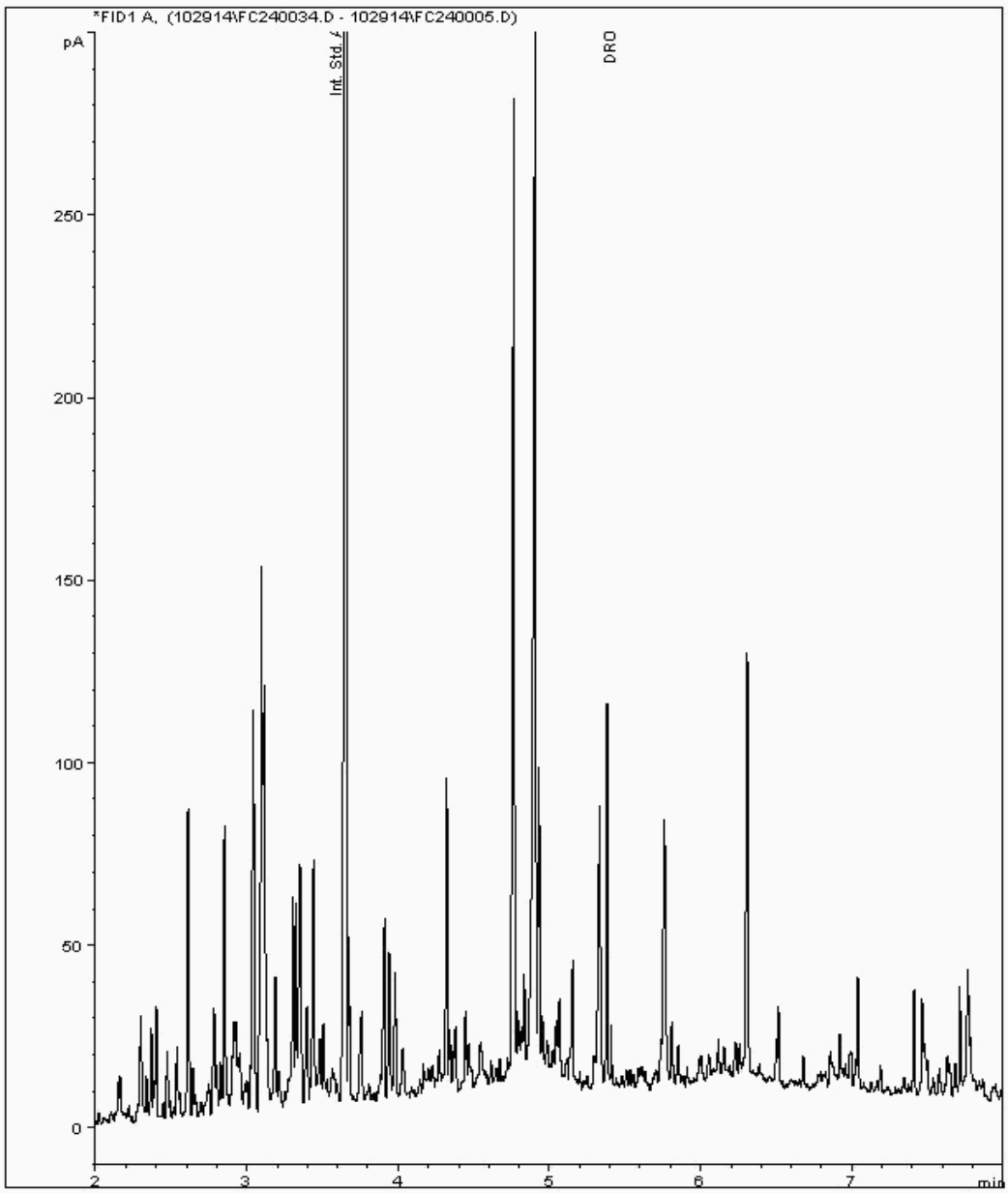
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10235295
Sample ID : Cell 5 Sump

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9718691-10235295
Date Acquired : 30/10/2014 04:10:39 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

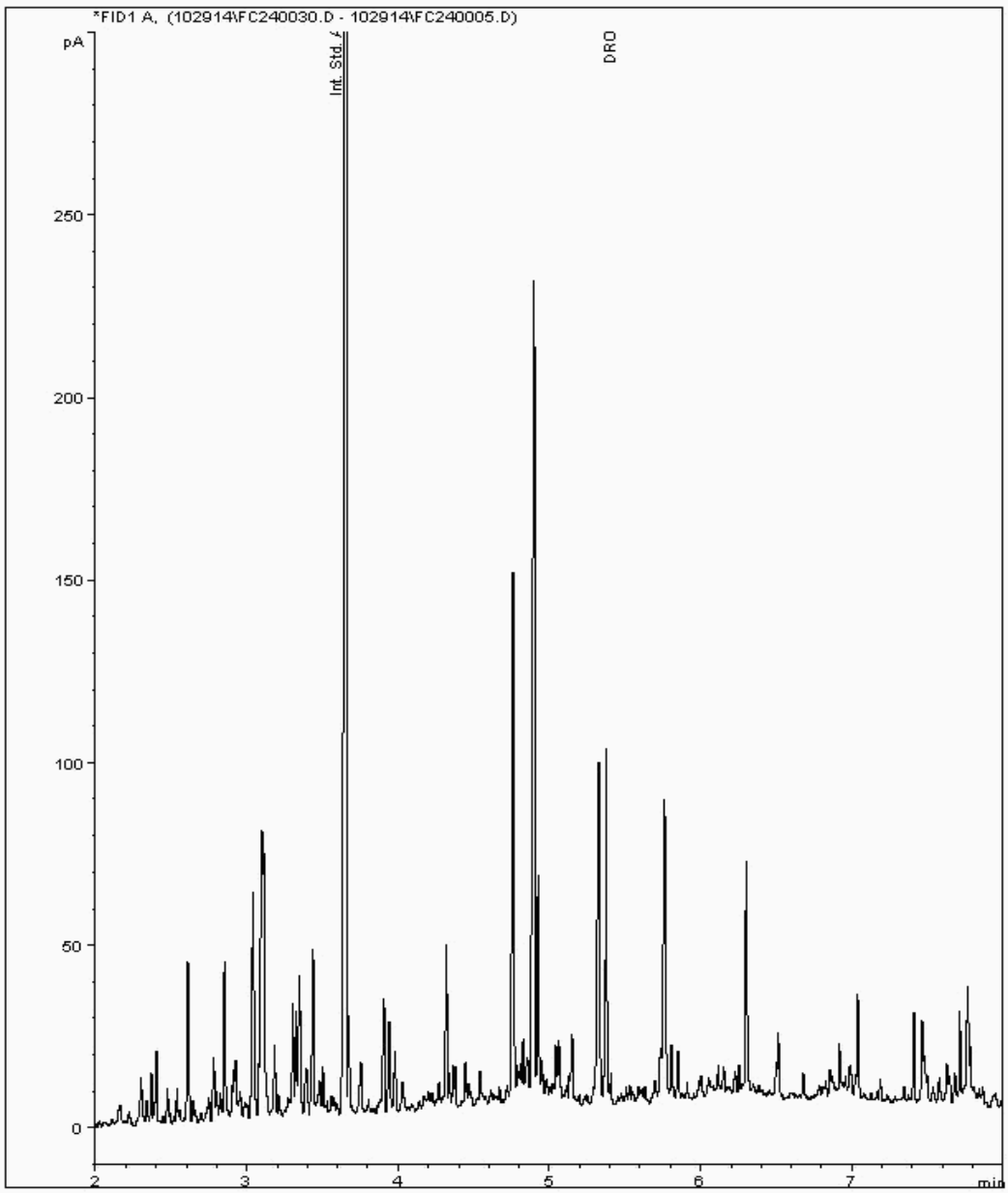
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10236032
Sample ID : Cell 1/2 Sump

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9718631-10236032
Date Acquired : 30/10/2014 02:43:01 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

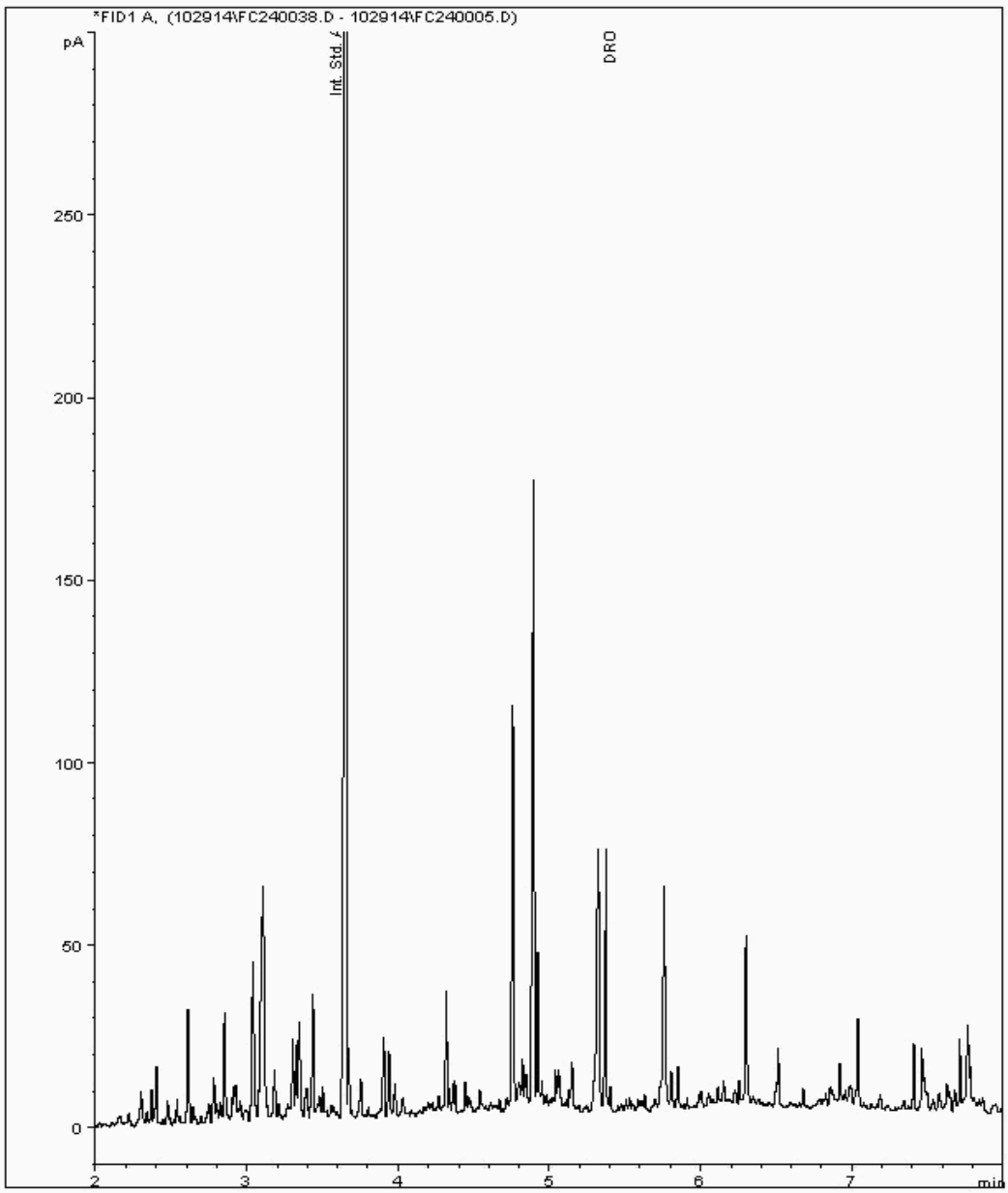
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10236148
Sample ID : Cell 7 Sump

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9718602-10236148
Date Acquired : 30/10/2014 05:38:07 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

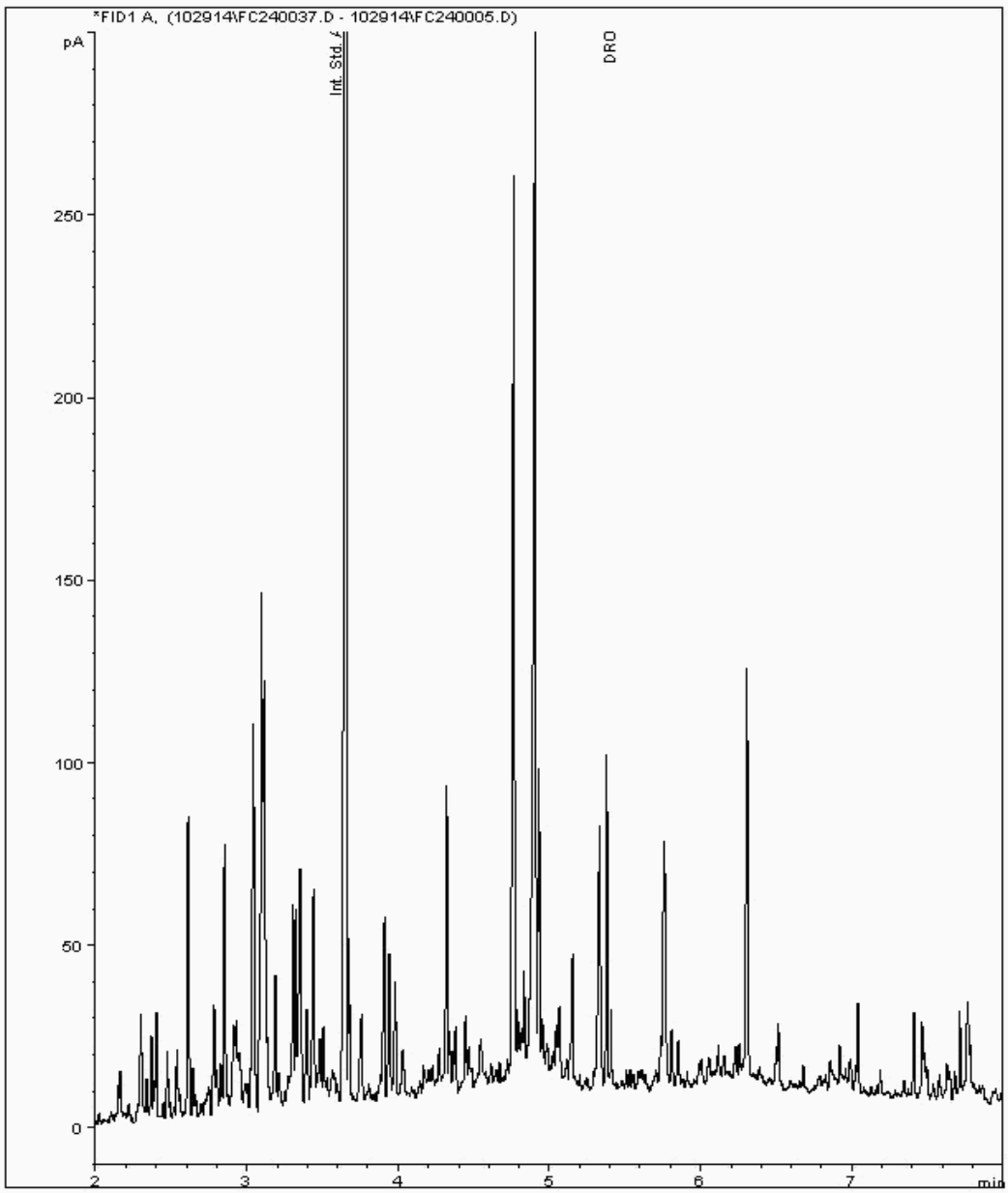
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10236279
Sample ID : Cell 3/4 Sump

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9718764-10236279
Date Acquired : 30/10/2014 05:16:18 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

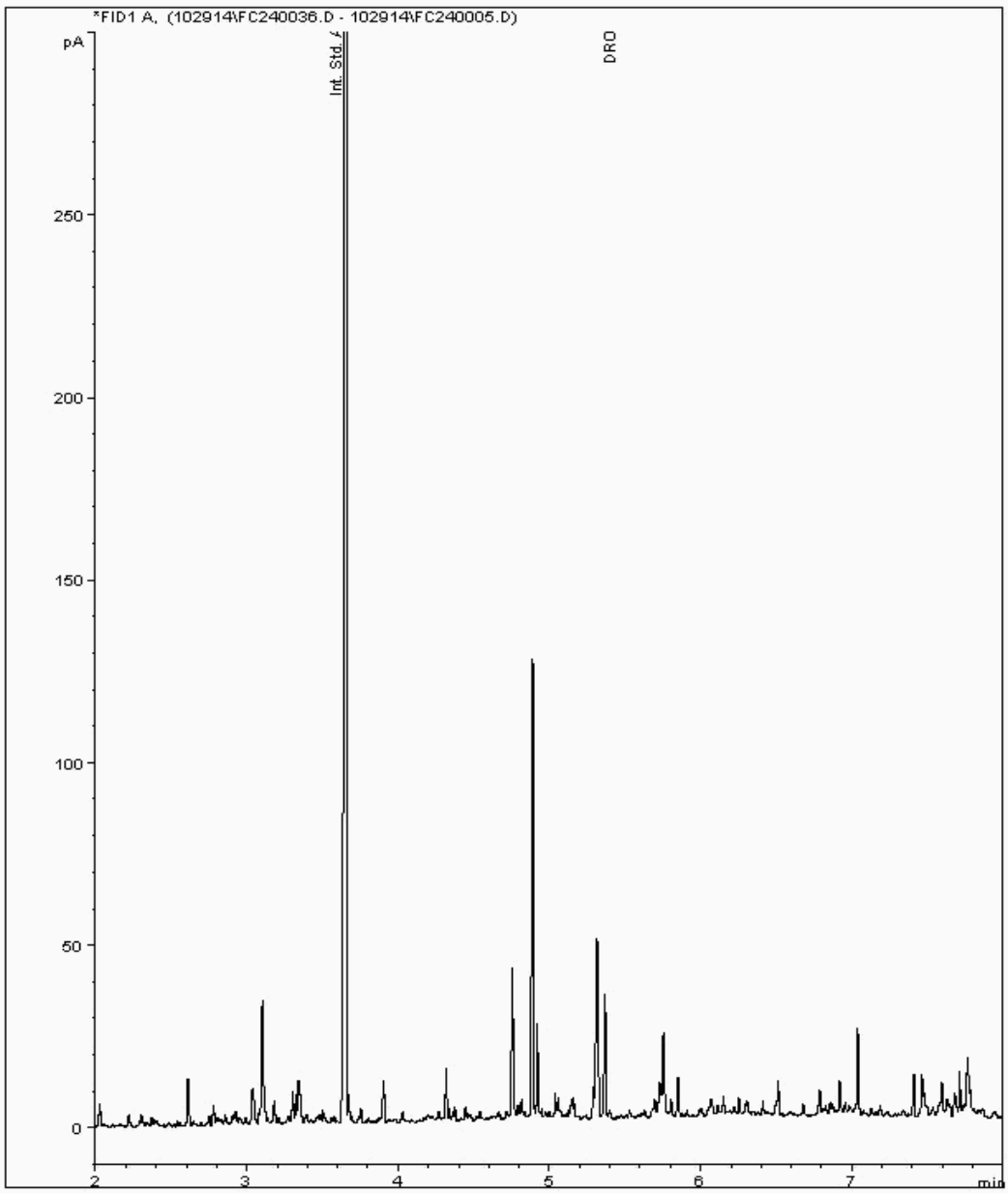
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10236846
Sample ID : Leachate Holding Laggon

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9718662-10236846
Date Acquired : 30/10/2014 04:54:18 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

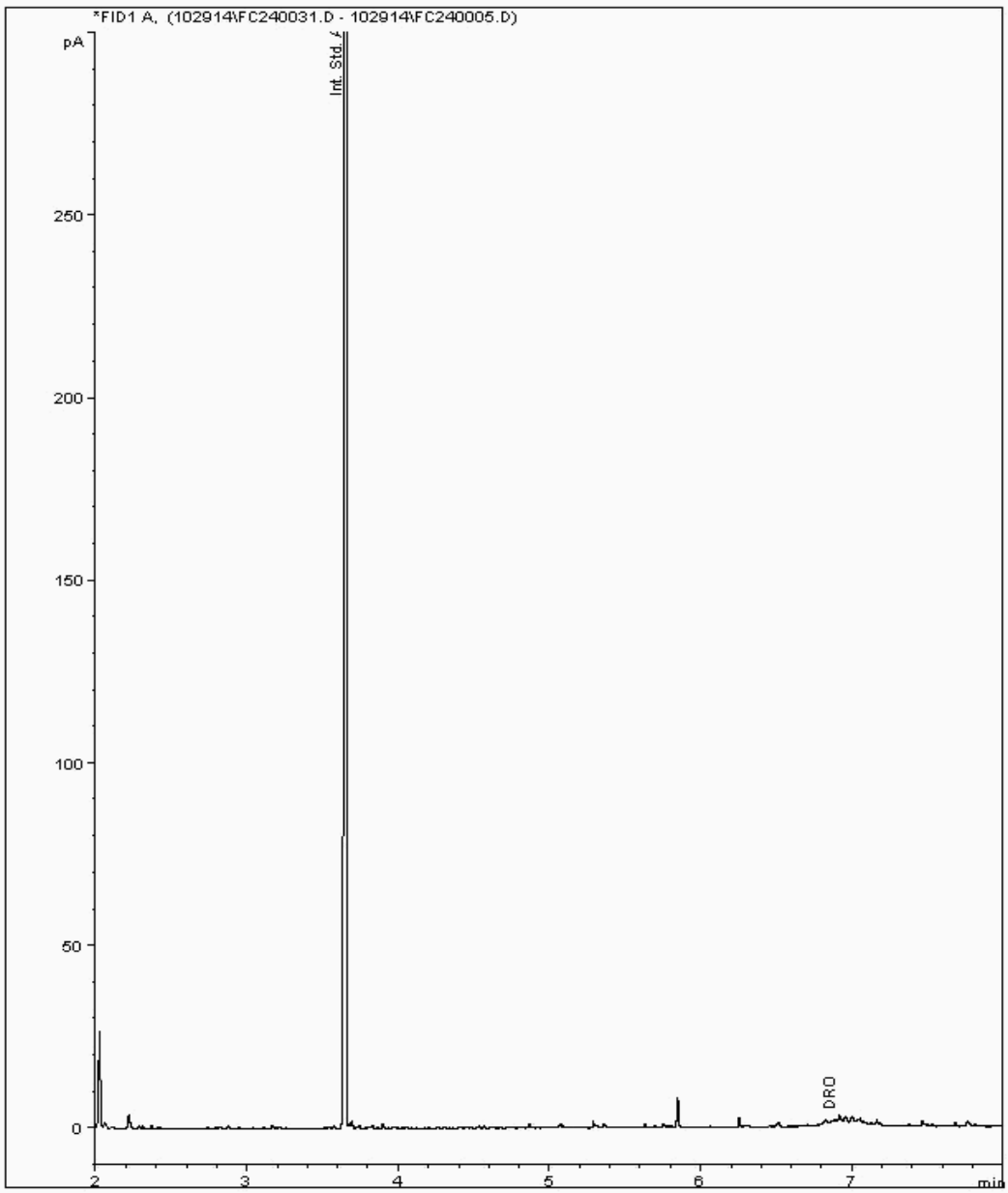
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10237231
Sample ID : UD1

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9719164-10237231
Date Acquired : 30/10/2014 03:05:03 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

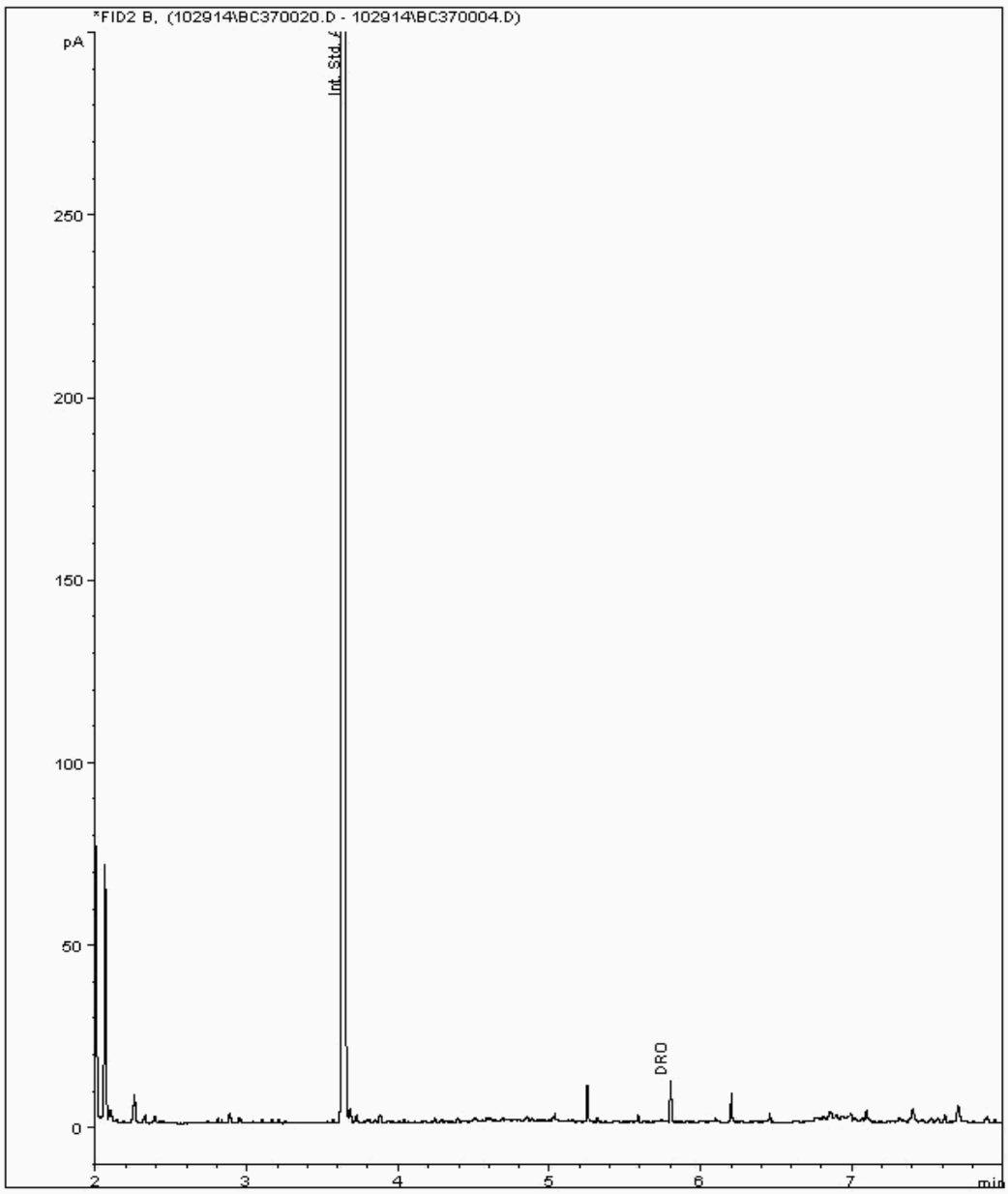
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10237266
Sample ID : SW207

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9723404-10237266
Date Acquired : 30/10/2014 10:58:49 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

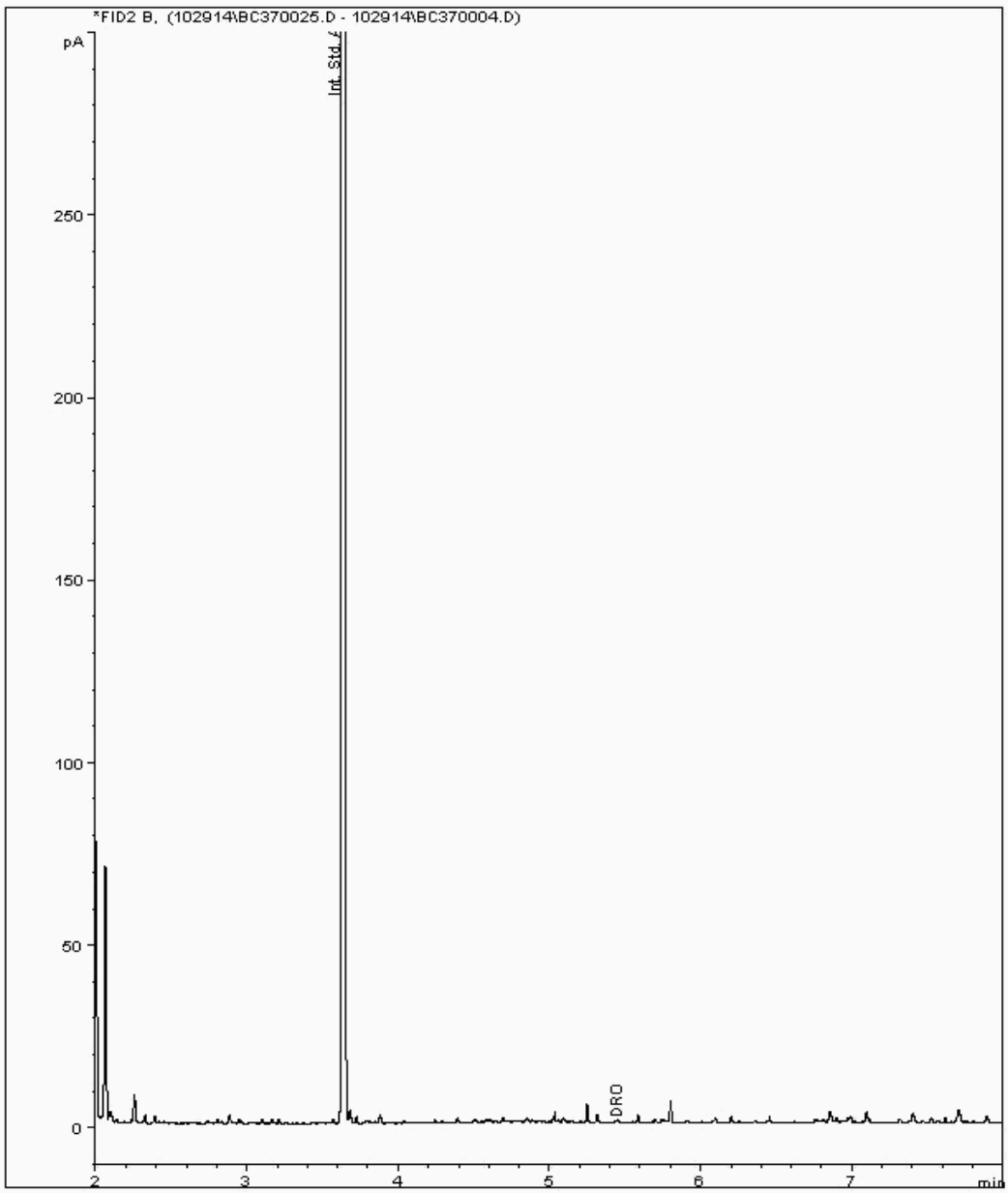
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10237292
Sample ID : SW204

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9723426-10237292
Date Acquired : 30/10/2014 12:50:08 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

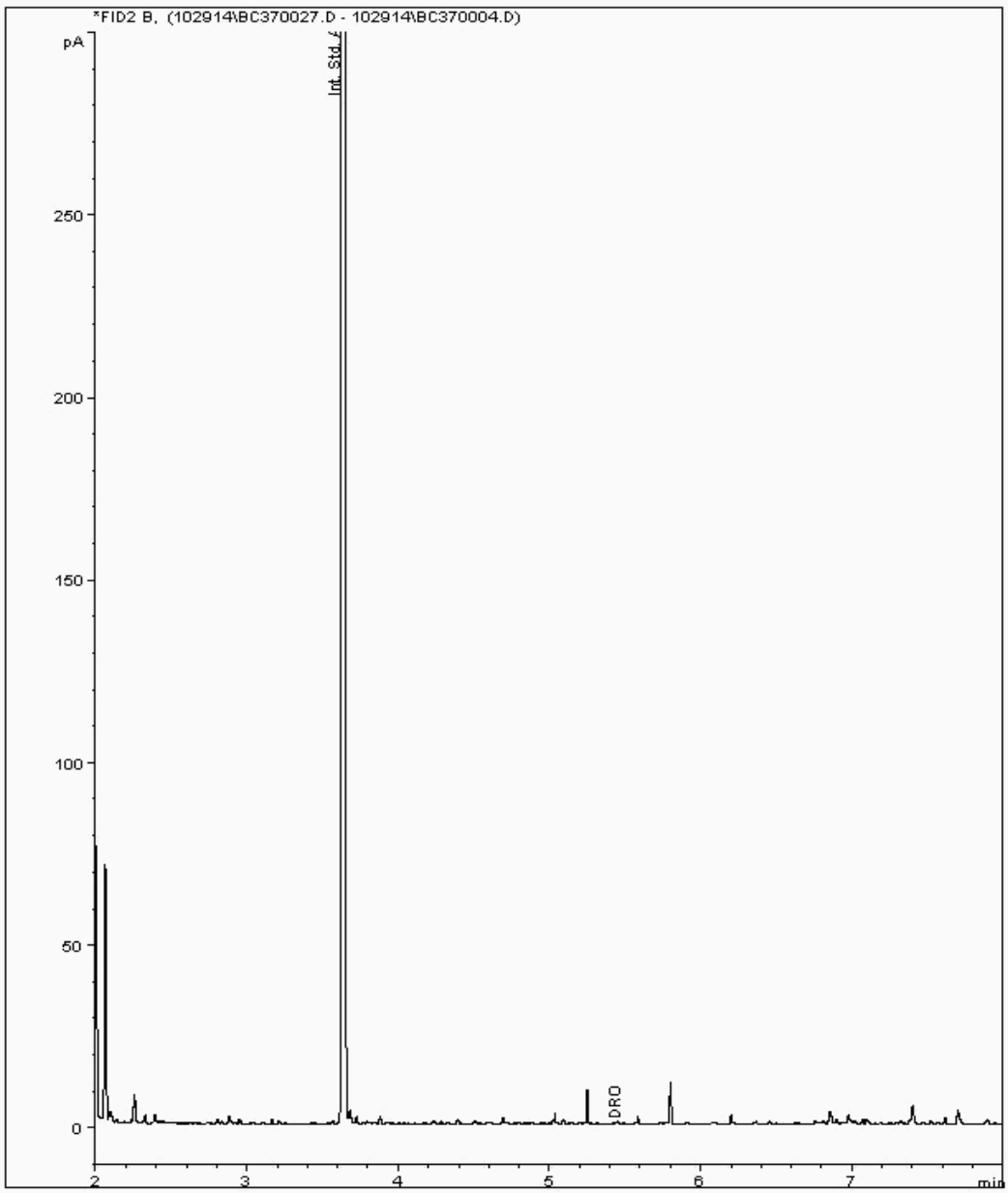
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10237362
Sample ID : SW206

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9723357-10237362
Date Acquired : 30/10/2014 13:34:44 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

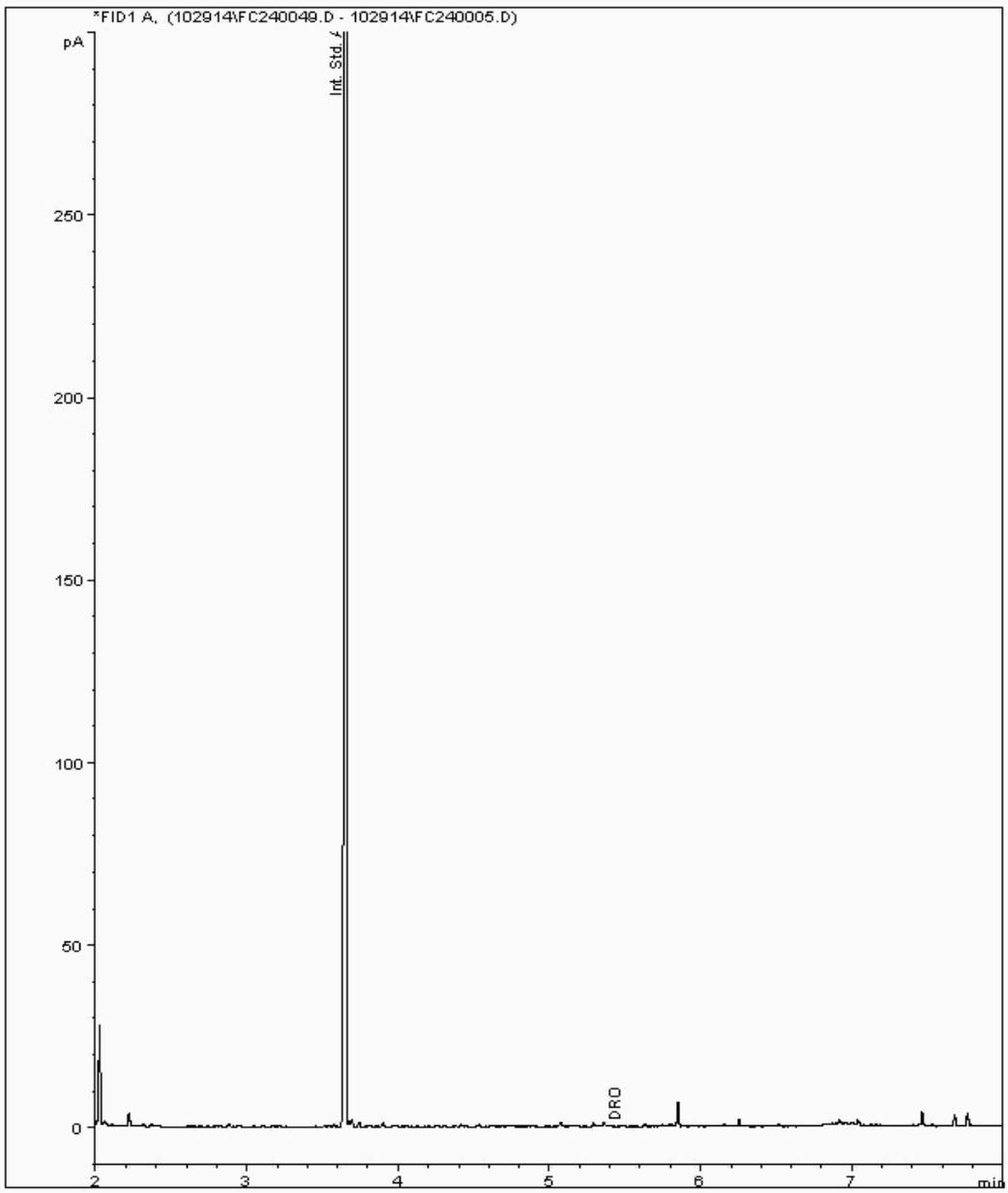
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 10239108
Sample ID : SW203

Depth :

Alcontrol/Geochem Analytical Services
EPH Range Organics (C10 - C40)

Sample Identity: 9723309-10239108
Date Acquired : 30/10/2014 09:40:57 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

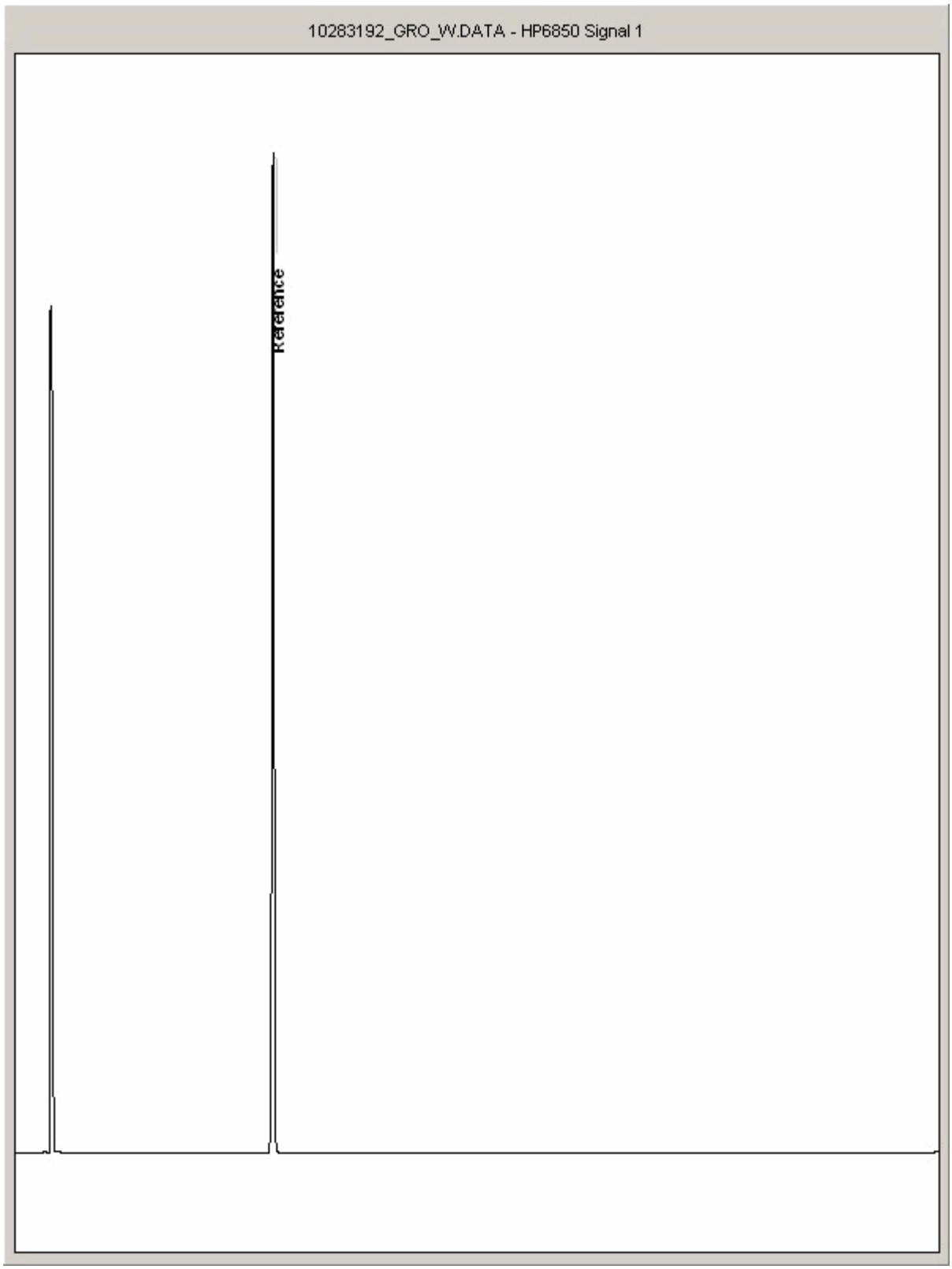
SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10283192
Sample ID : UD1

Depth :



CERTIFICATE OF ANALYSIS

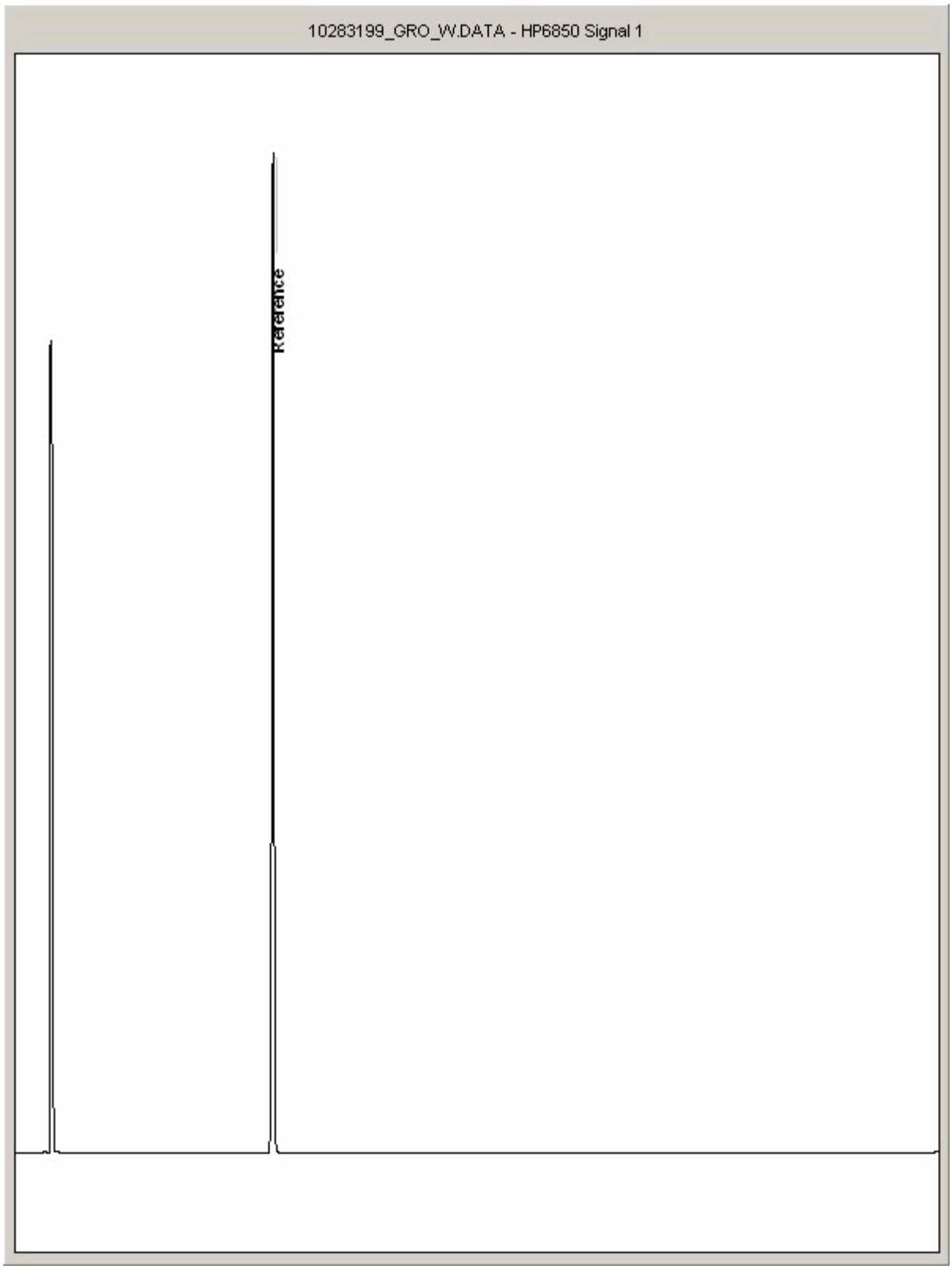
SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10283199
Sample ID : UD5

Depth :



CERTIFICATE OF ANALYSIS

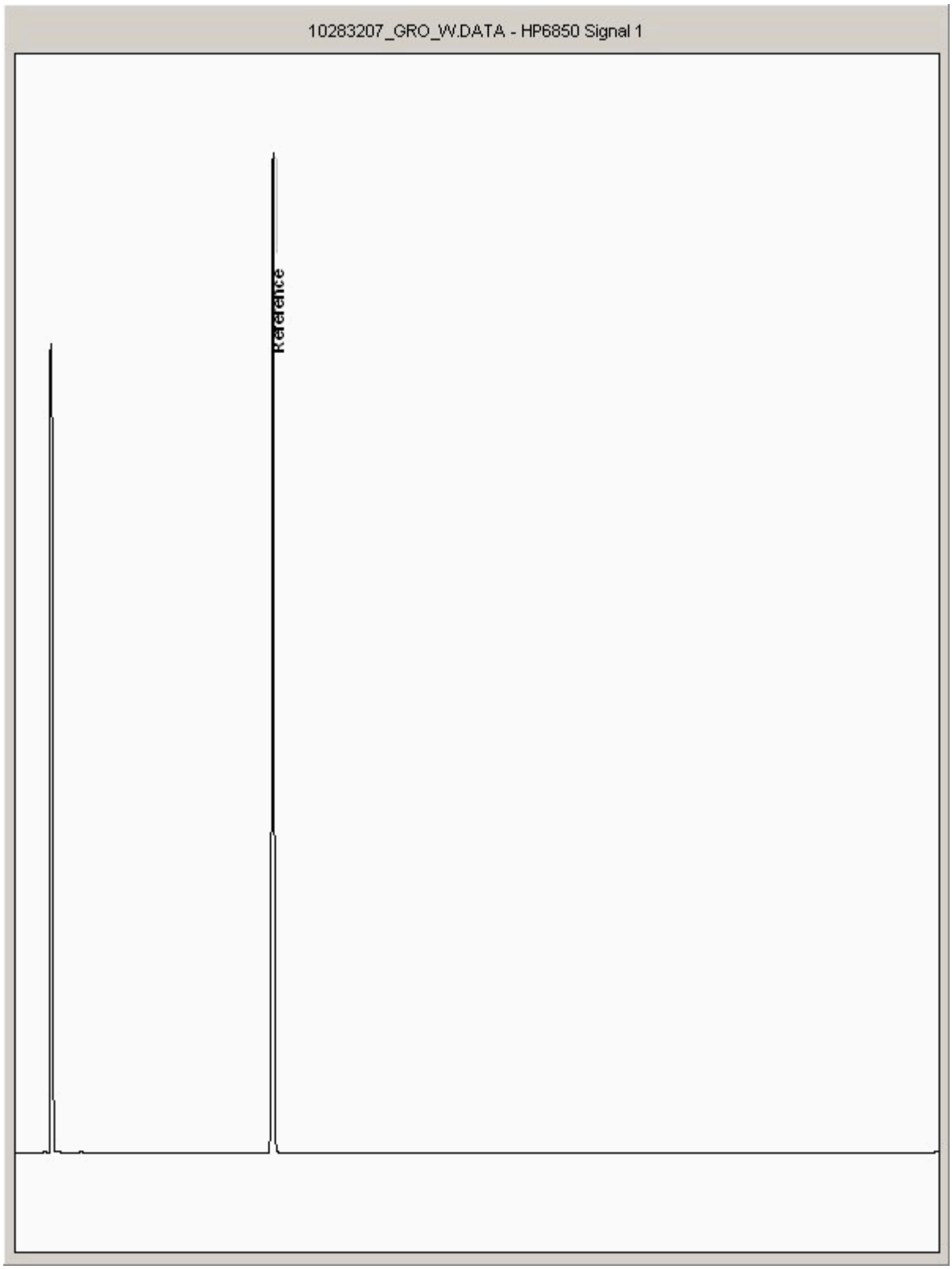
SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10283207
Sample ID : NACW228

Depth :



CERTIFICATE OF ANALYSIS

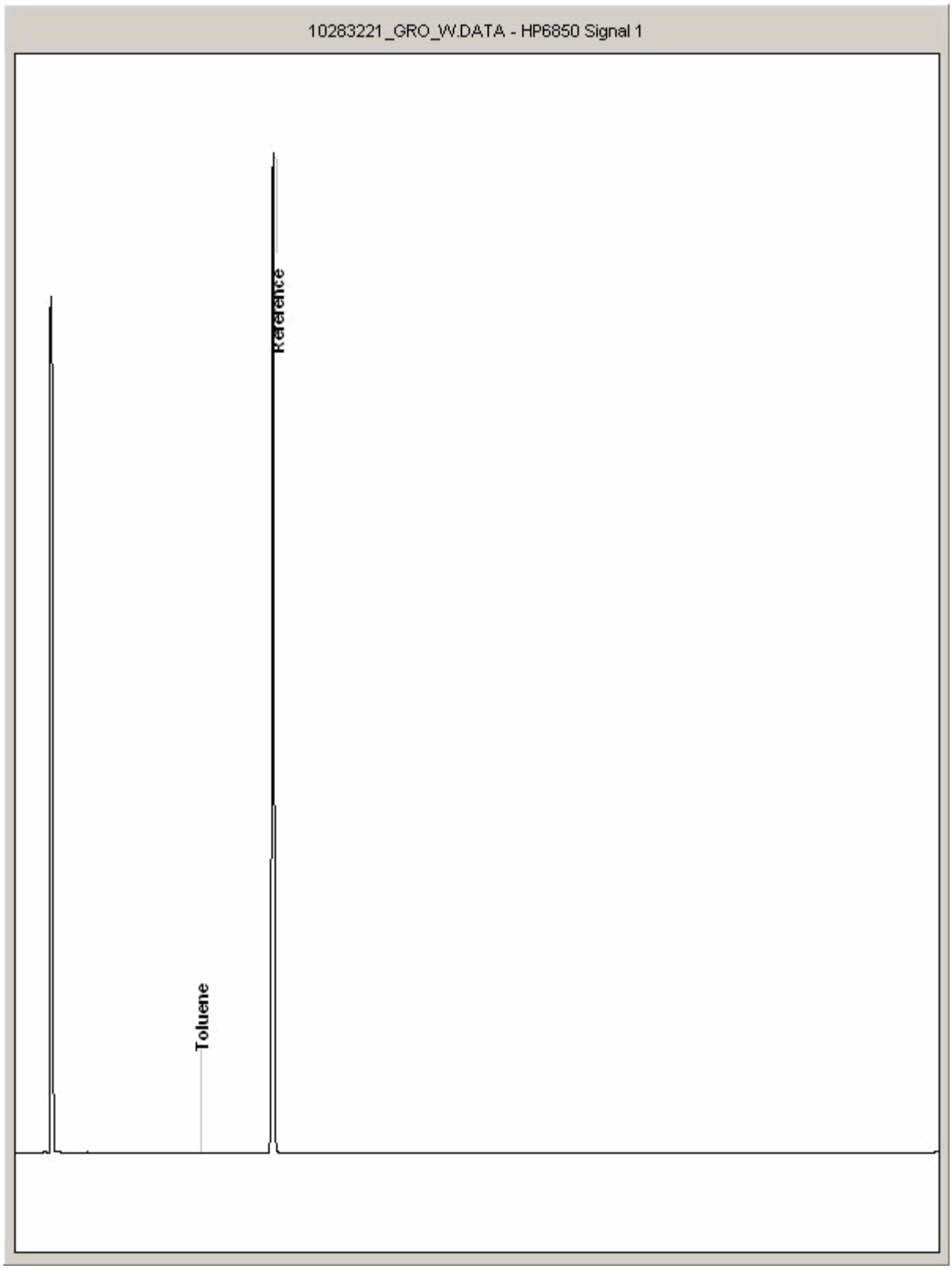
SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10283221
Sample ID : BH3/9

Depth :



CERTIFICATE OF ANALYSIS

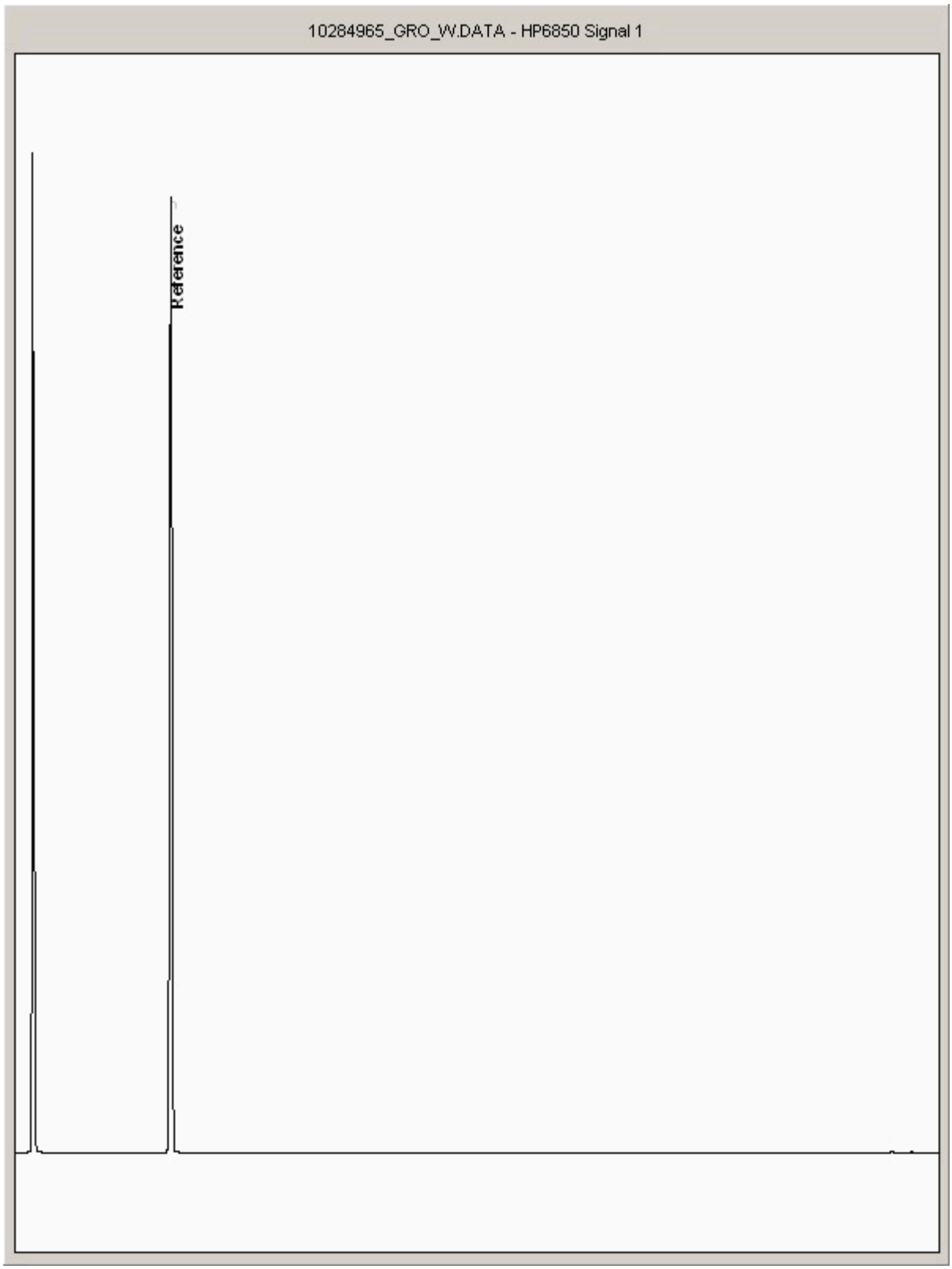
SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10284965
Sample ID : UD3

Depth :



CERTIFICATE OF ANALYSIS

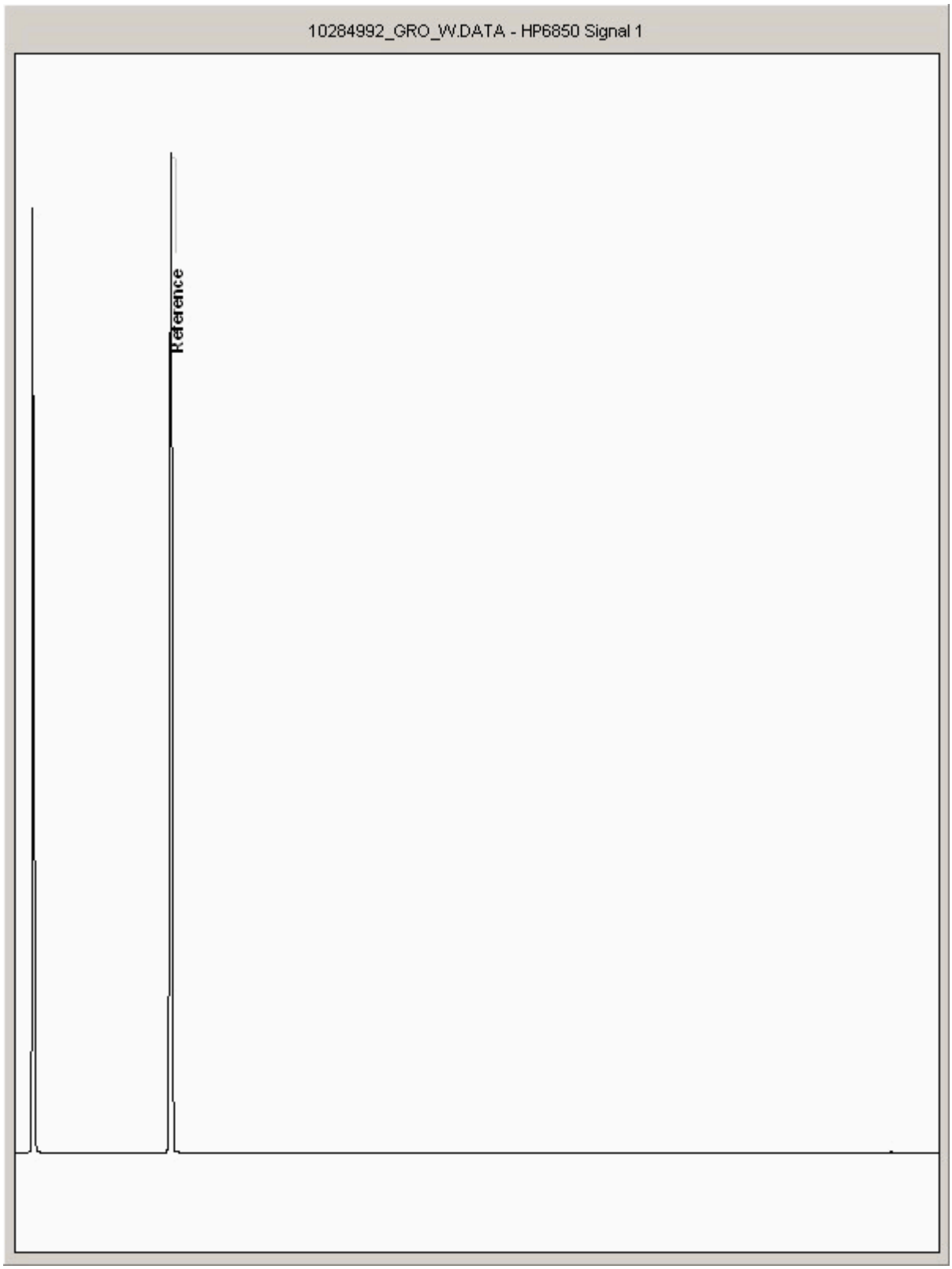
SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10284992
Sample ID : UD4

Depth :



CERTIFICATE OF ANALYSIS

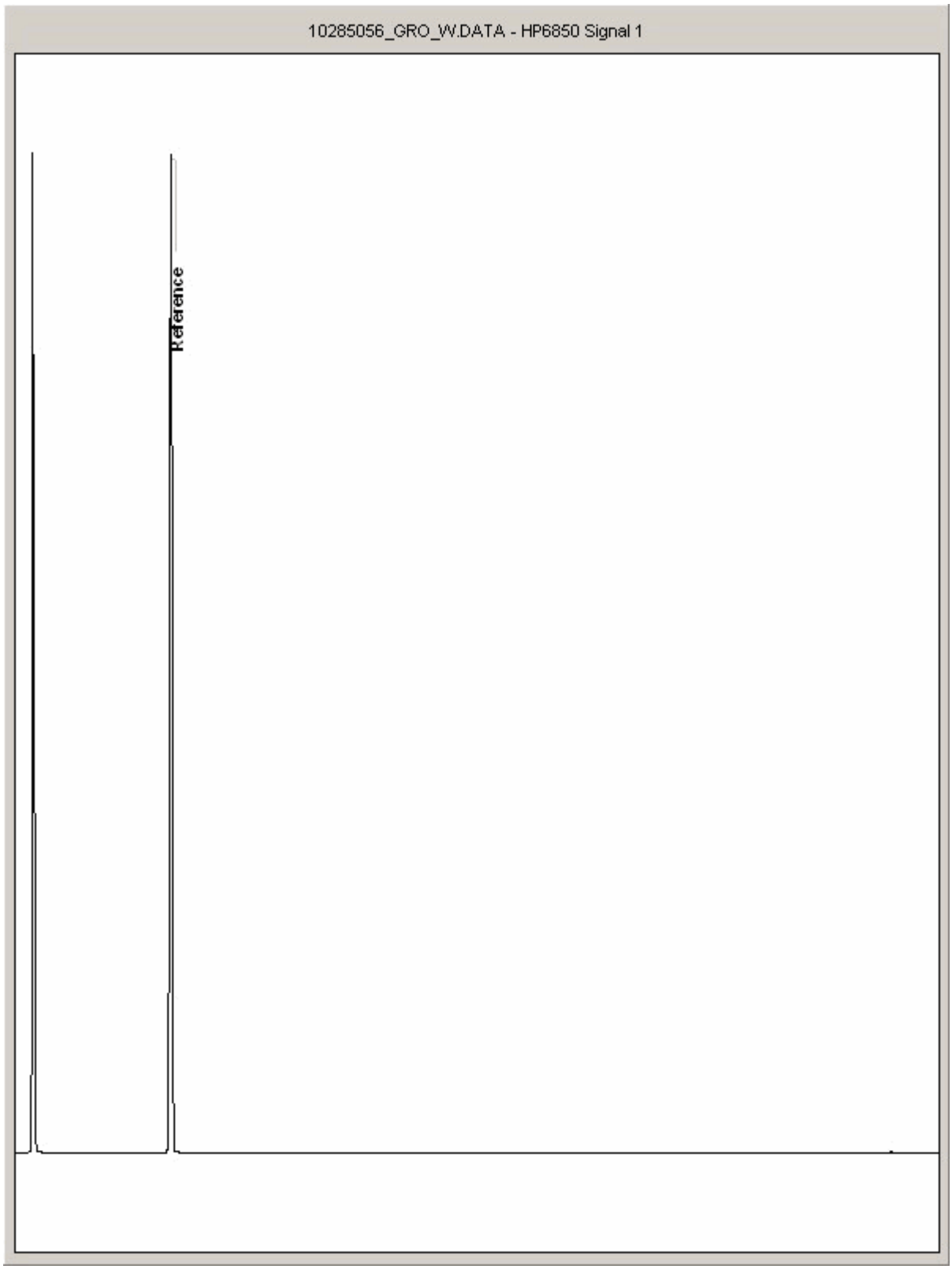
SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10285056
Sample ID : NACW229

Depth :



CERTIFICATE OF ANALYSIS

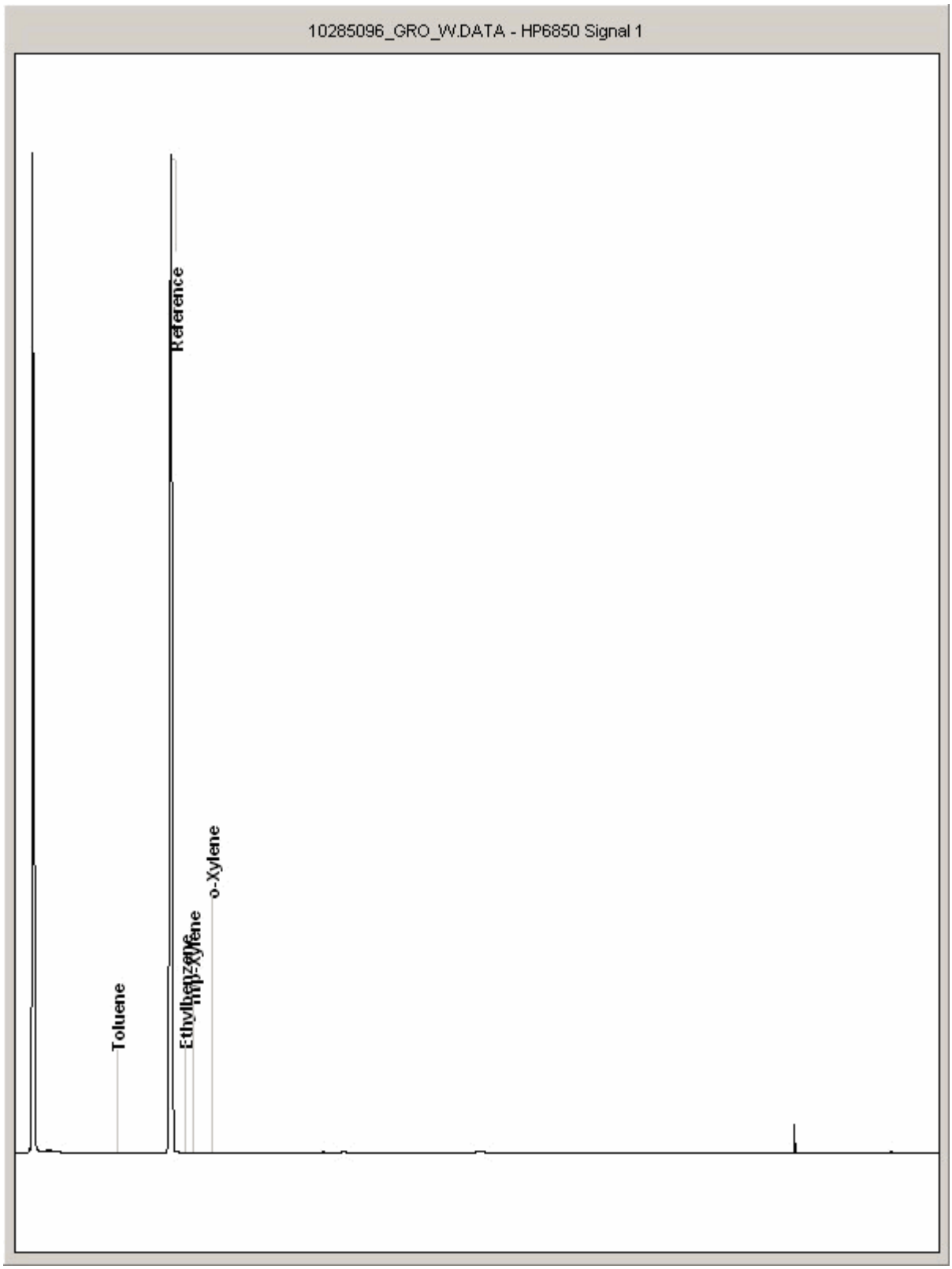
SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10285096
Sample ID : Leachate Holding Laggon

Depth :



CERTIFICATE OF ANALYSIS

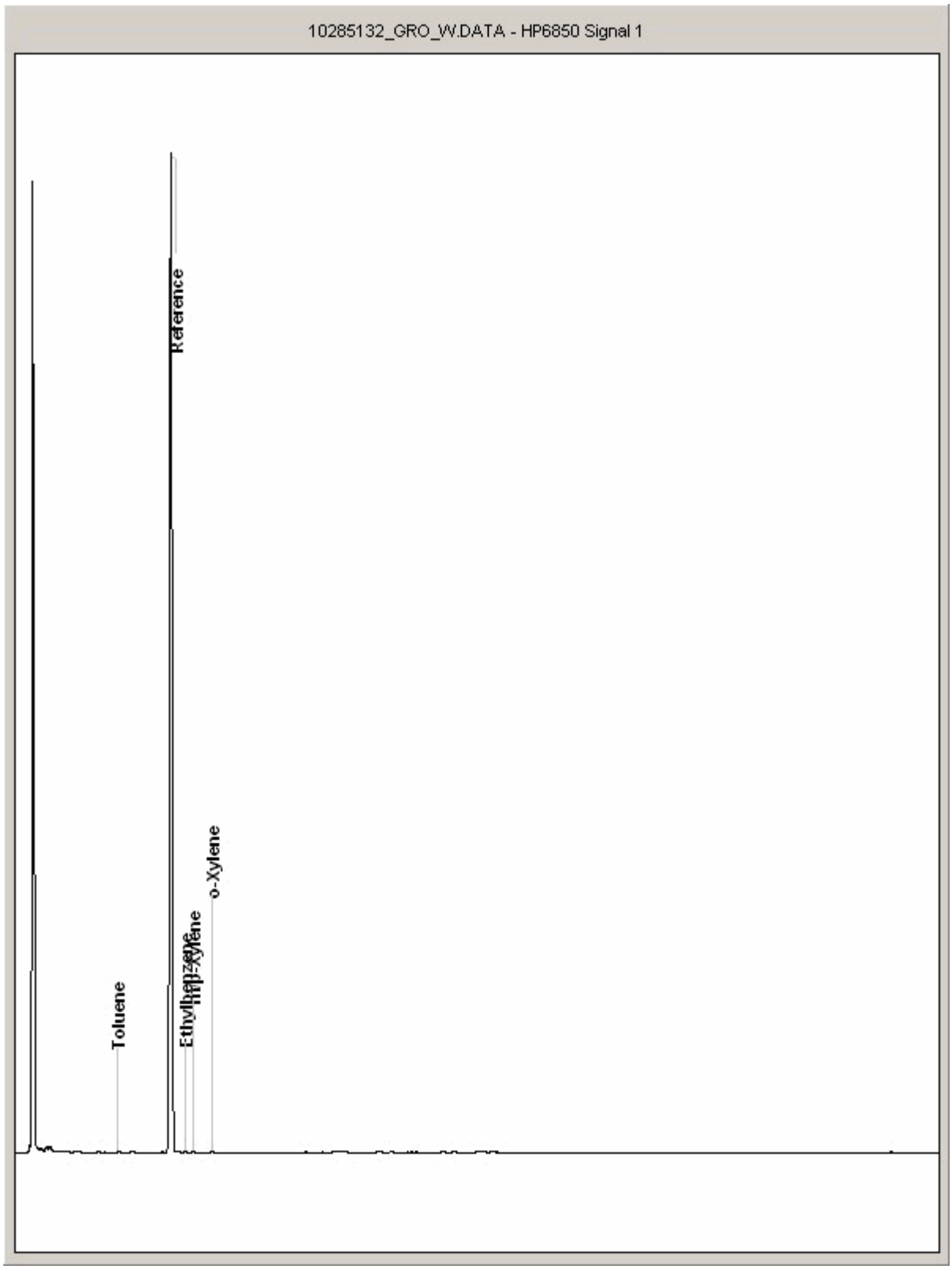
SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10285132
Sample ID : Cell 7 Sump

Depth :



CERTIFICATE OF ANALYSIS

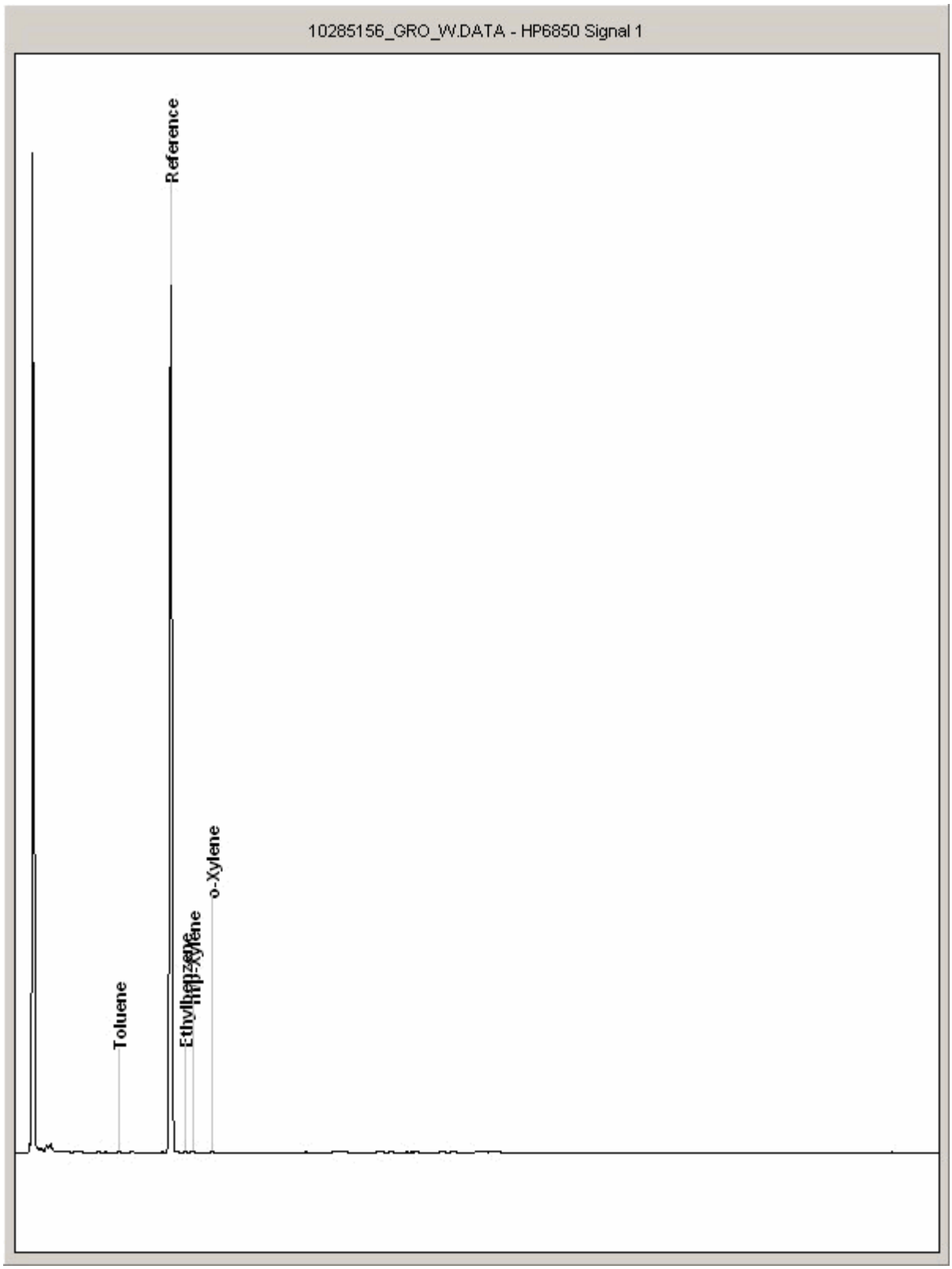
SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10285156
Sample ID : Cell 1/2 Sump

Depth :



CERTIFICATE OF ANALYSIS

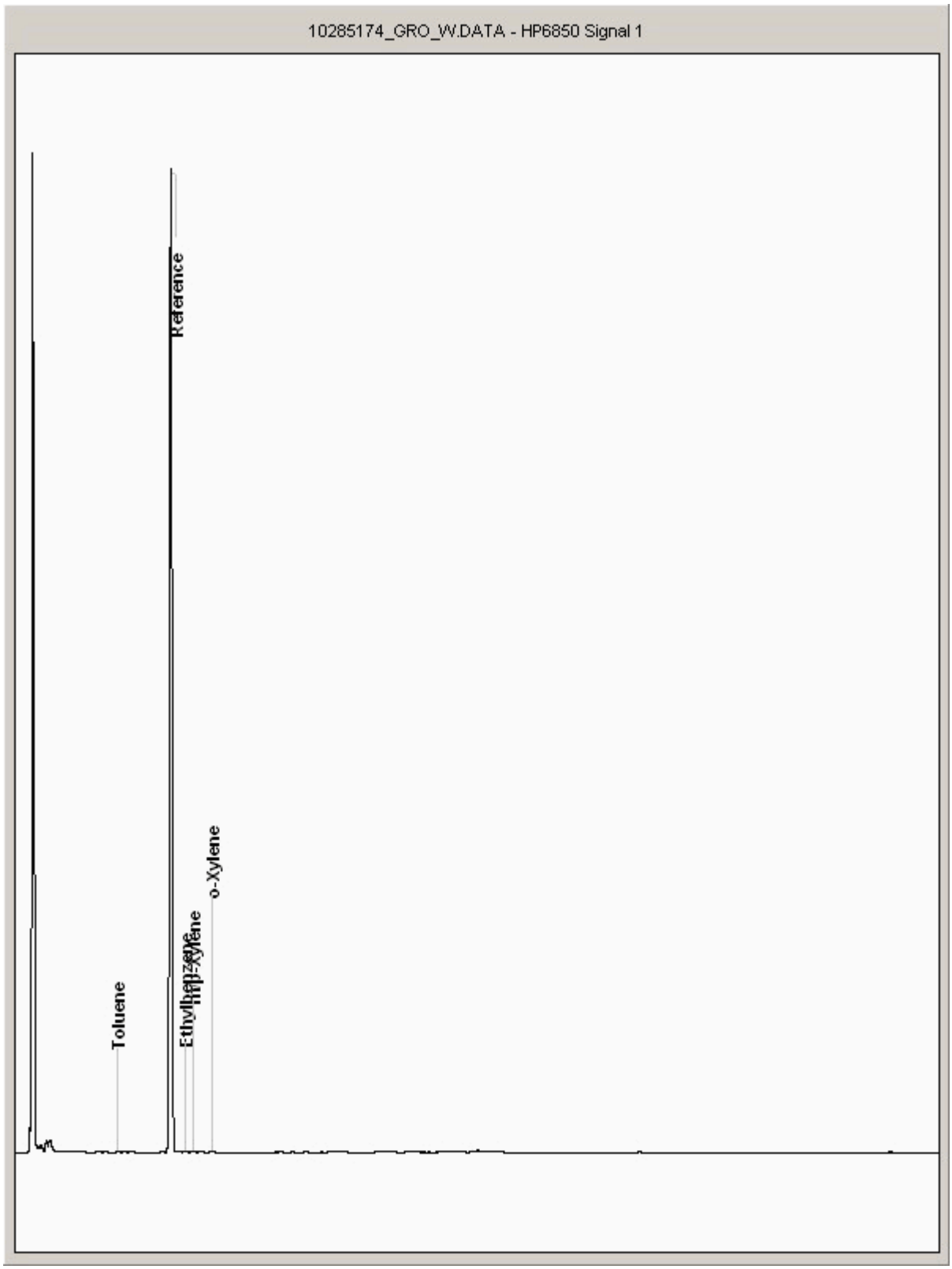
SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10285174
Sample ID : Cell 5 Sump

Depth :



CERTIFICATE OF ANALYSIS

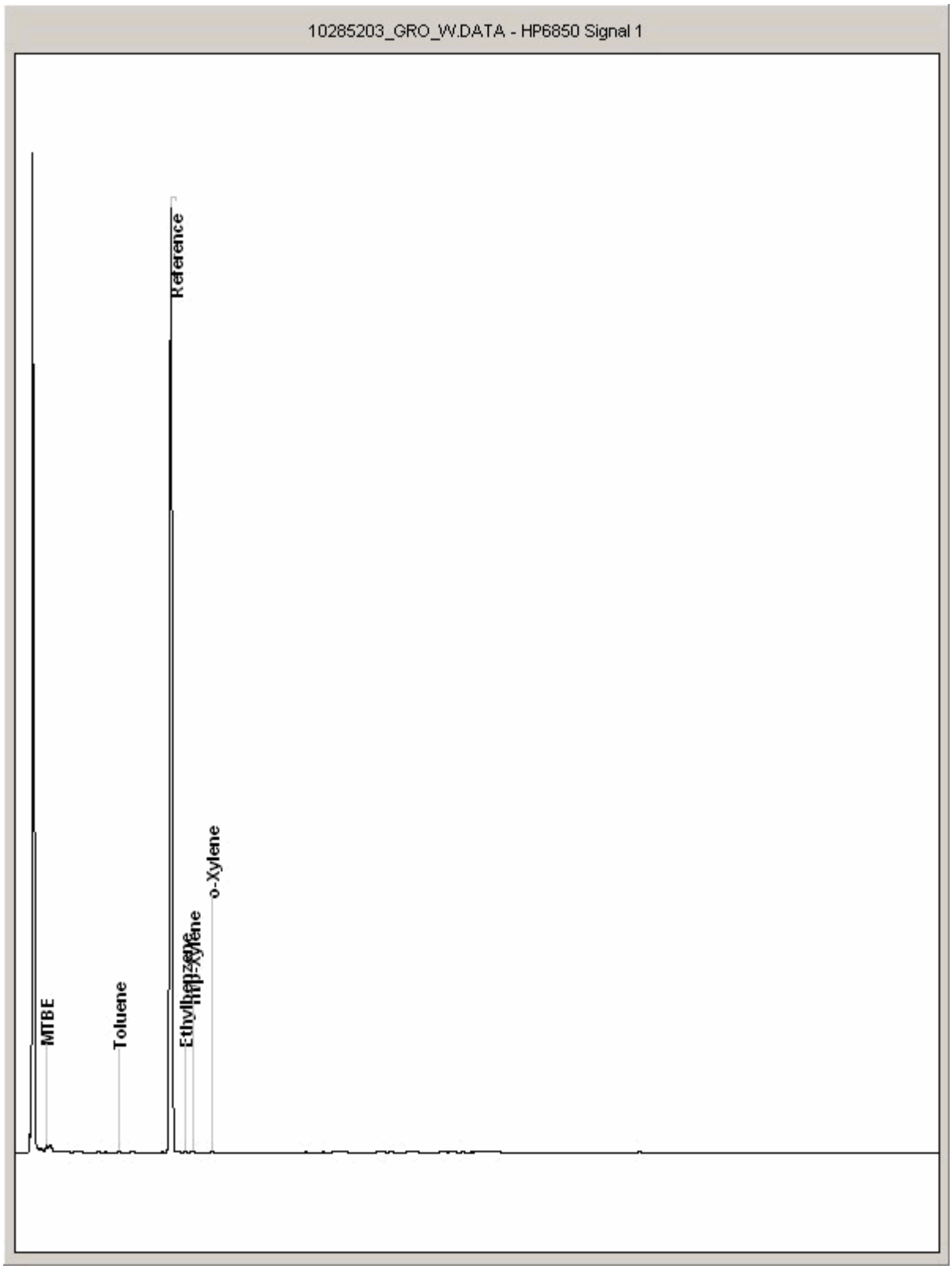
SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10285203
Sample ID : Cell 6 Sump

Depth :



CERTIFICATE OF ANALYSIS

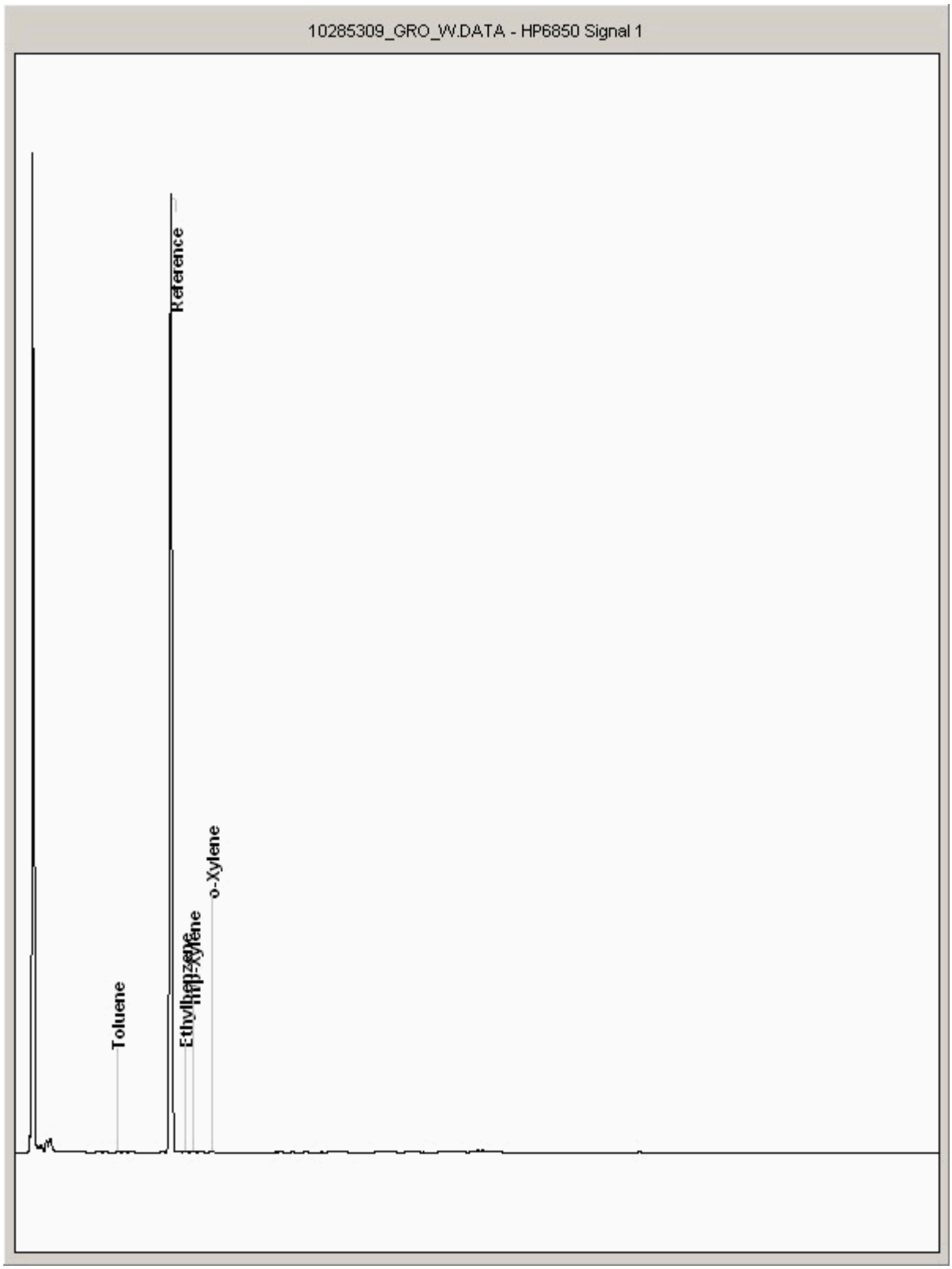
SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10285309
Sample ID : Cell 3/4 Sump

Depth :



CERTIFICATE OF ANALYSIS

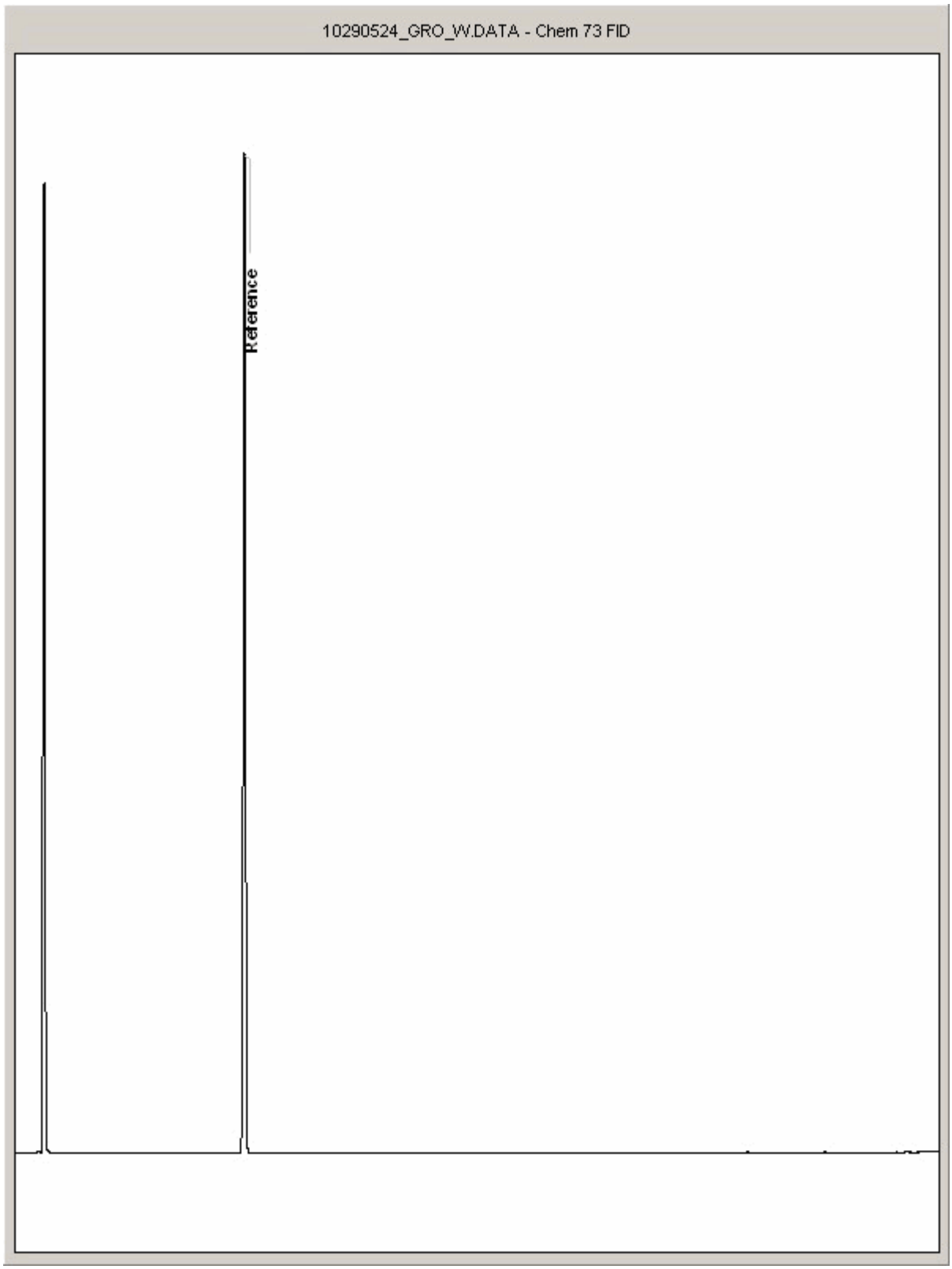
SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10290524
Sample ID : SW204

Depth :



CERTIFICATE OF ANALYSIS

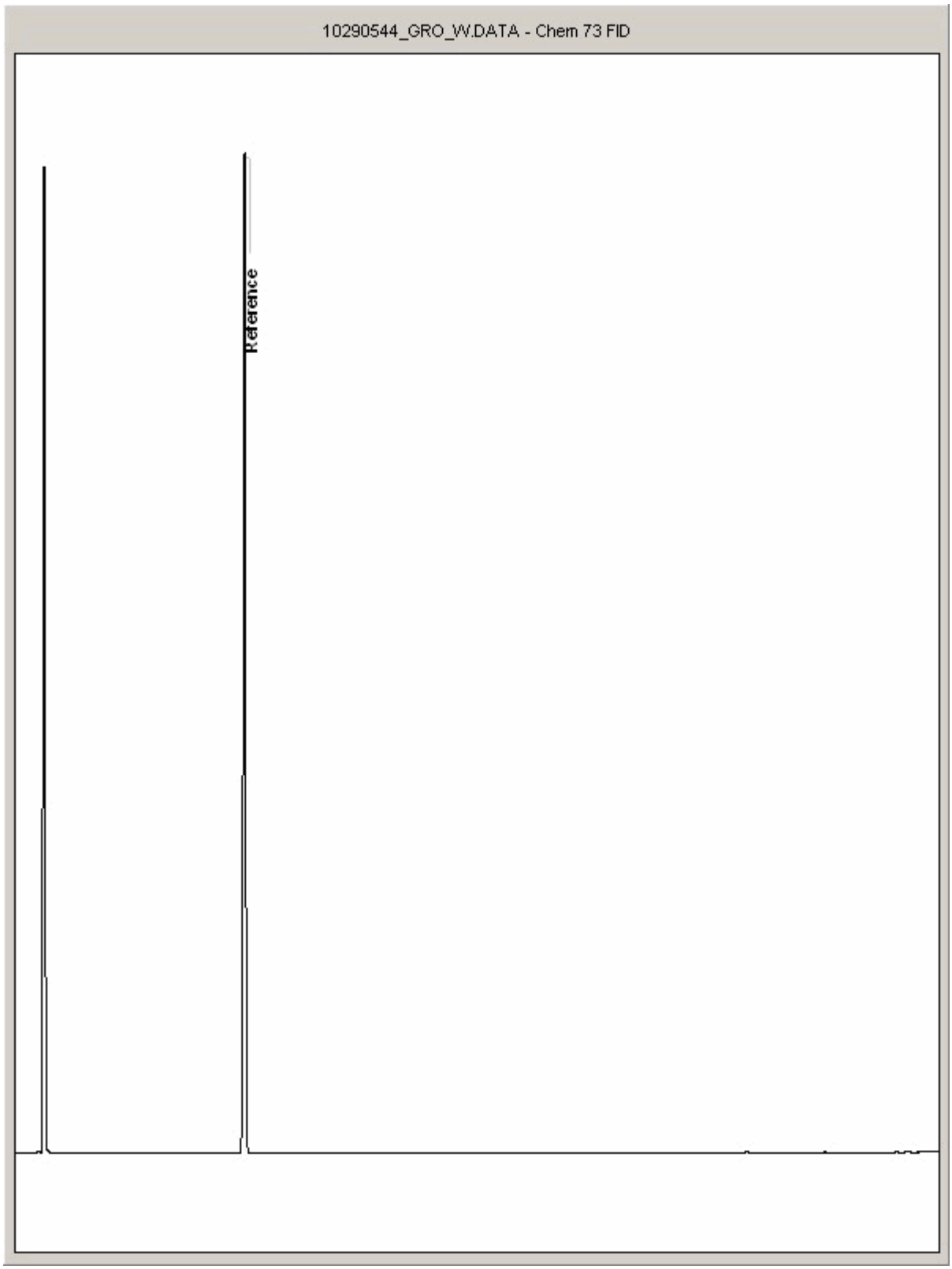
SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10290544
Sample ID : SW202

Depth :



CERTIFICATE OF ANALYSIS

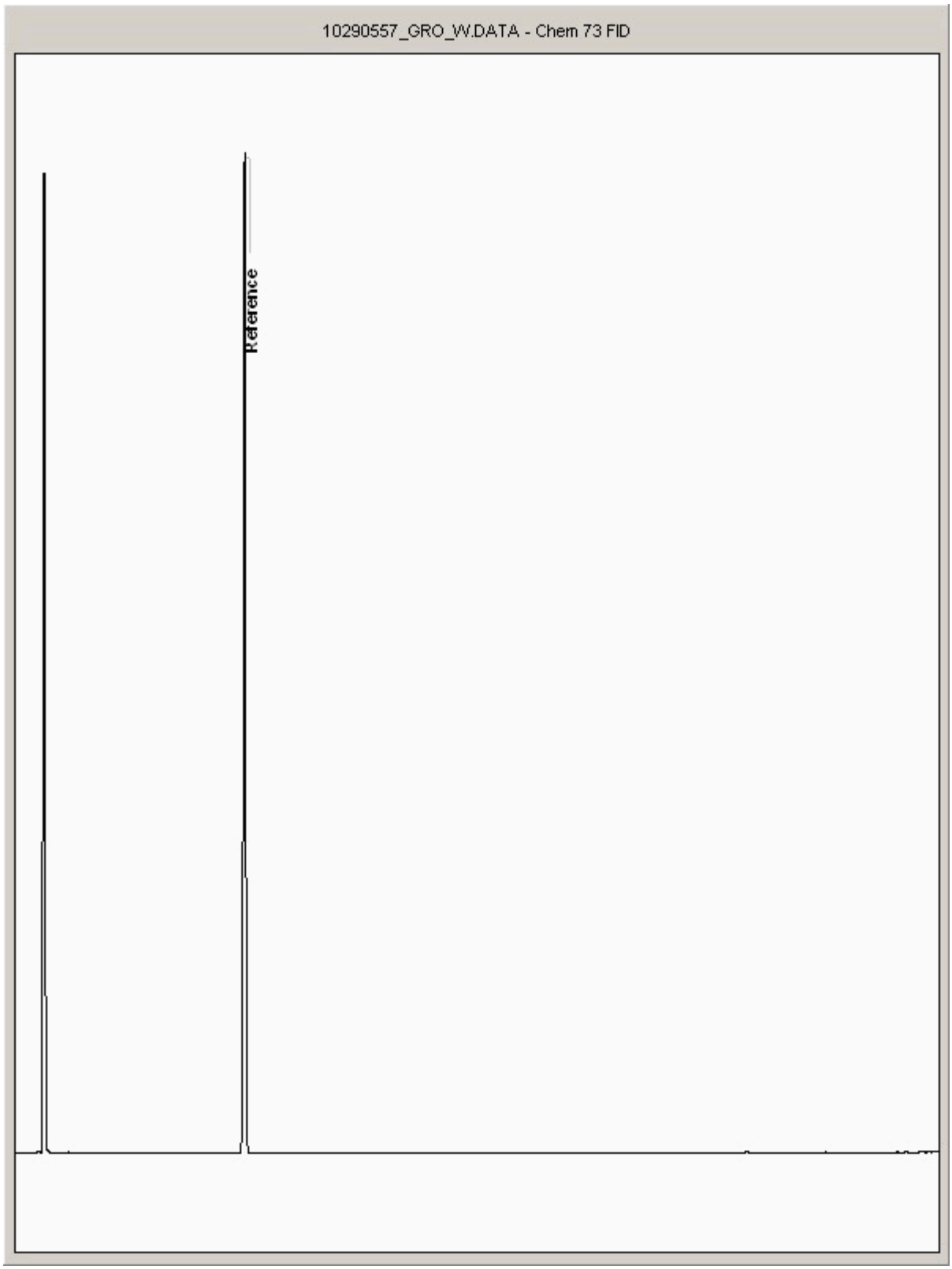
SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10290557
Sample ID : SW203

Depth :



CERTIFICATE OF ANALYSIS

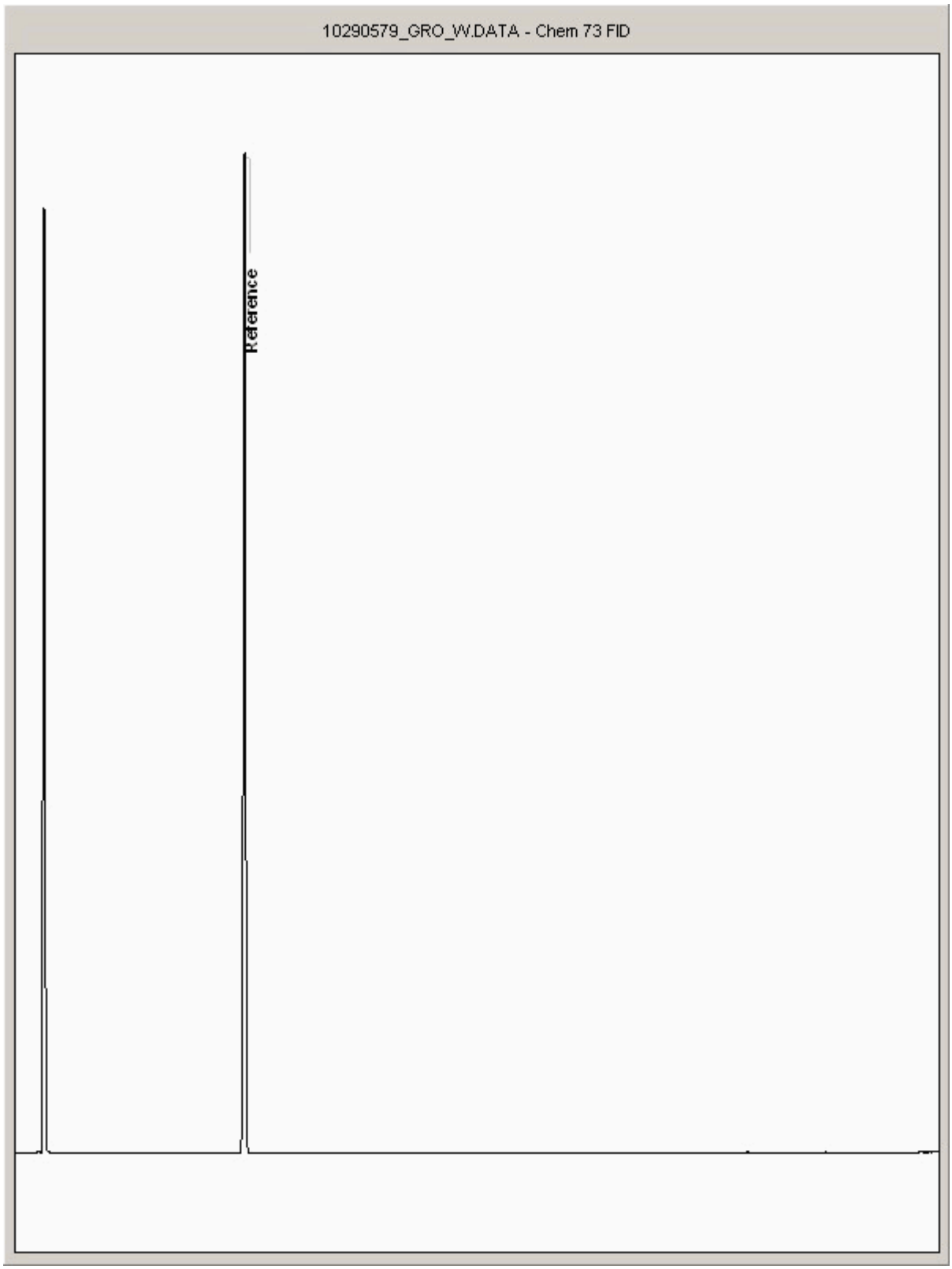
SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10290579
Sample ID : SW205

Depth :



CERTIFICATE OF ANALYSIS

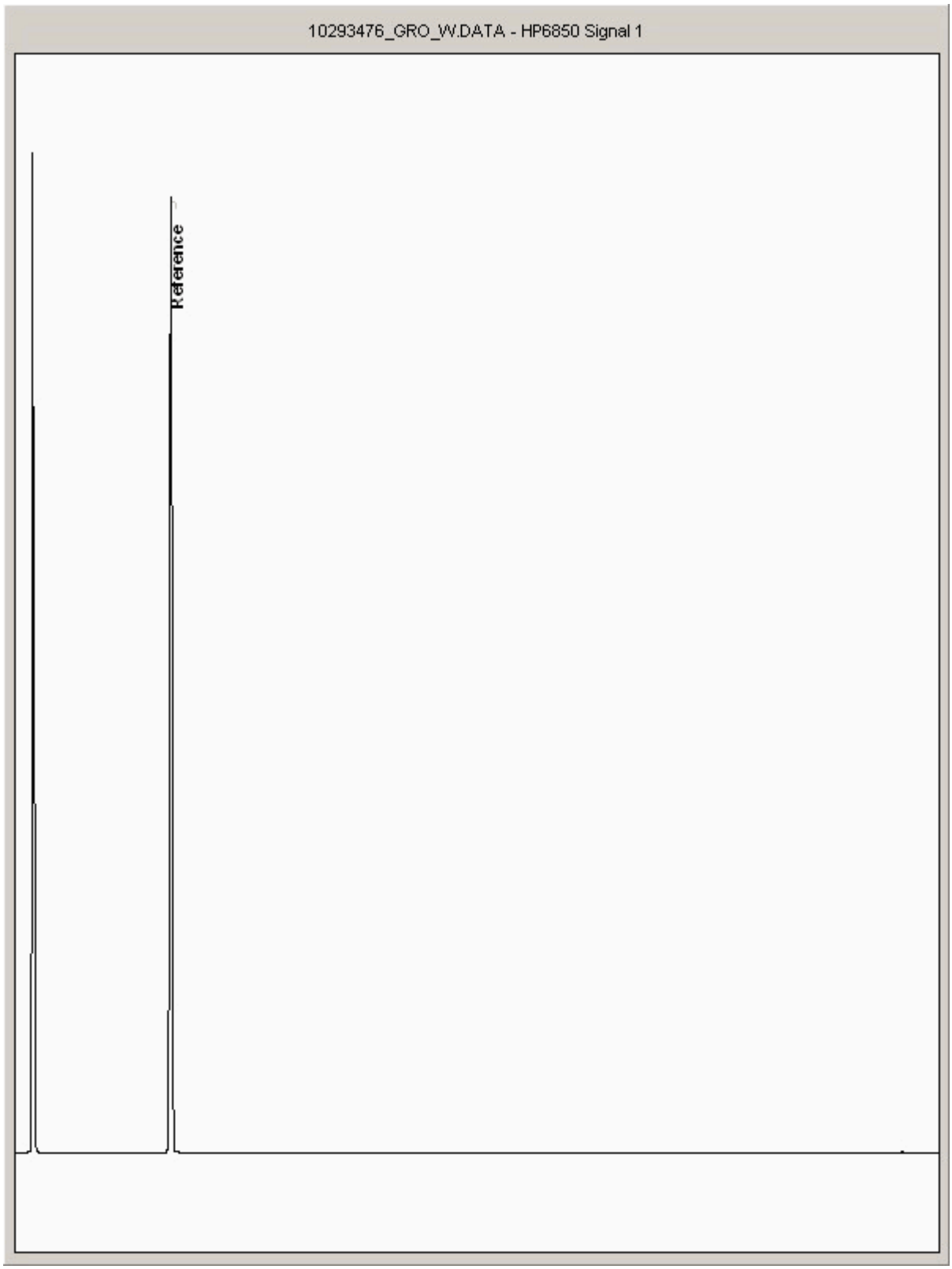
SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10293476
Sample ID : SW201

Depth :



CERTIFICATE OF ANALYSIS

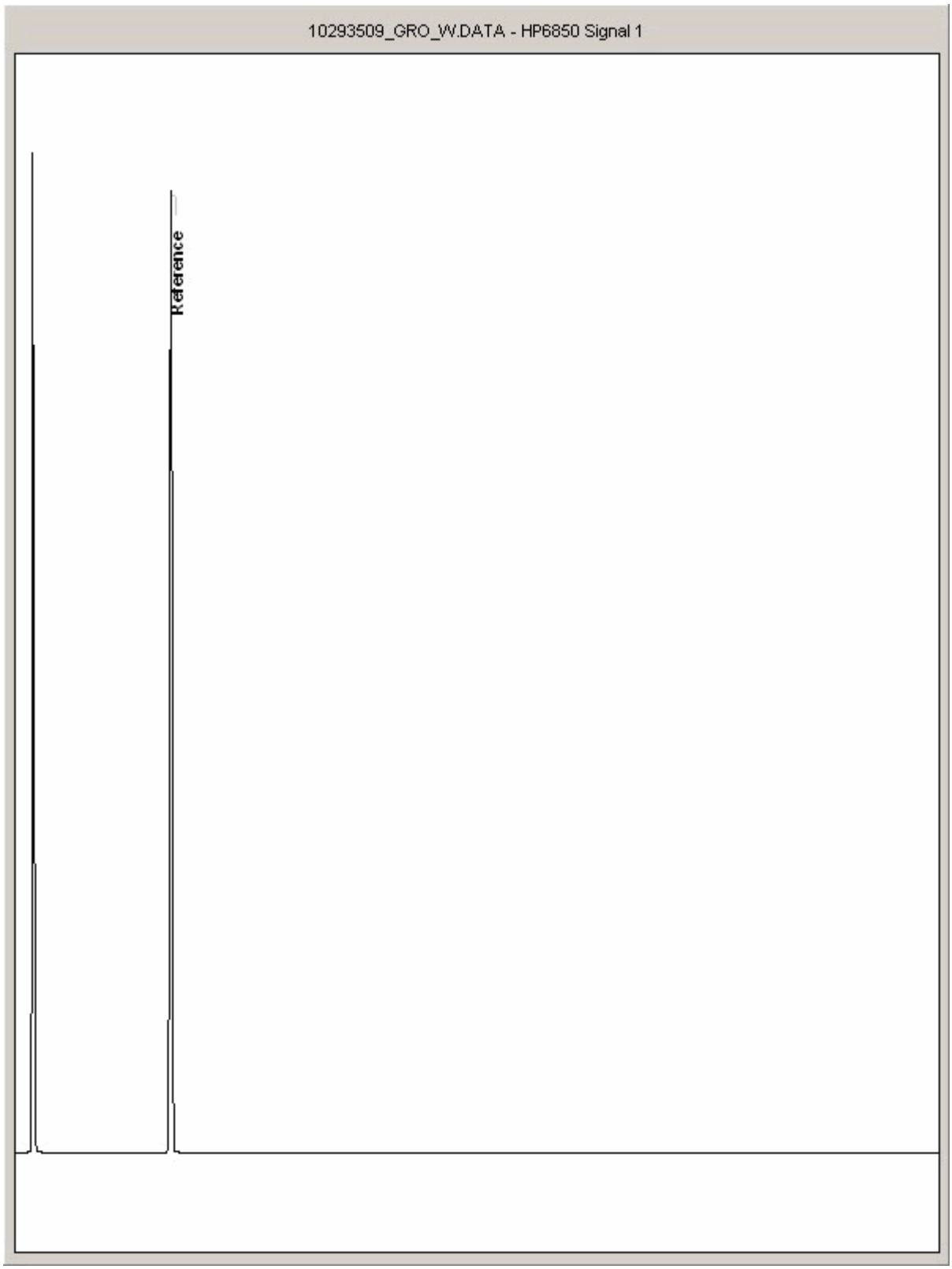
SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10293509
Sample ID : SW206

Depth :



CERTIFICATE OF ANALYSIS

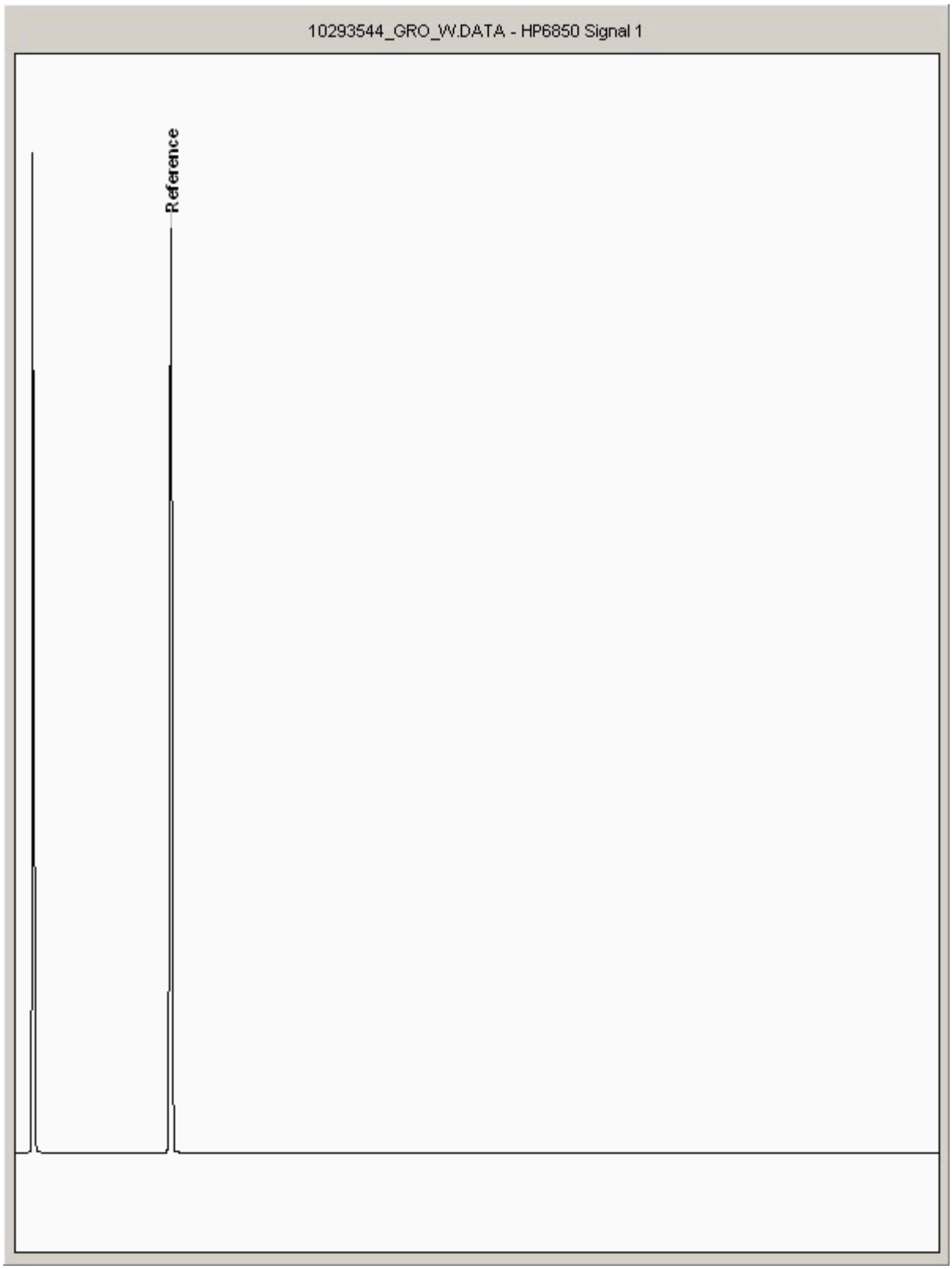
SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 10293544
Sample ID : SW207

Depth :



CERTIFICATE OF ANALYSIS

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA Leach tests, flash point, ammonium as NH4 by the BRE method, VOC TICS, SVOC TICS, TOF-MS SCAN/SEARCH and TOF-MS TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for both soil jars, tubs and volatile jars. All waters and vials will be discarded 10 days after the analysis is completed (e-mailed). All material removed during an asbestos containing material screen and analysed for the presence of asbestos will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be screened in house for the presence of large asbestos containing material fragments/pieces. If no asbestos containing material is found this will be reported as 'no asbestos containing material detected'. If asbestos containing material is detected it will be removed and analysed by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If asbestos containing material is present no further analysis will be undertaken. At no point is the fibre content of the soil sample determined.

7. If no separate volatile sample is supplied by the client, the integrity of the data may be compromised if the laboratory is required to create a sub-sample from the bulk sample -similarly, if a headspace or sediment is present in the volatile sample. This will be flagged up as an invalid VOC on the test schedule or recorded on the log sheet.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. A table containing the date of analysis for each parameter is not routinely included with the report, but is available upon request.

12. Results relate only to the items tested

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 14).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. Our MCERTS accreditation for PAHs by GCMS applies to all product types apart from Kerosene, where naphthalene only is not
accredited.

19. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

20. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

21. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

22. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

23. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials -whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute themajor part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

24. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C4 -C10 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

SOLID MATRICES EXTRACTION SUMMARY

ANALYSIS	D/C OR WET	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
SOLVENT EXTRACTABLE MATTER	D&C	DCM	SOXTHERM	GRAVIMETRIC
CYCLOHEXANE EXT. MATTER	D&C	CYCLOHEXANE	SOXTHERM	GRAVIMETRIC
THIN LAYER CHROMATOGRAPHY	D&C	DCM	SOXTHERM	IATROSCAN
ELEMENTAL SULPHUR	D&C	DCM	SOXTHERM	HPLC
PHENOLS BY GCMS	WET	DCM	SOXTHERM	GC-MS
HERBICIDES	D&C	HEXANE/ACETONE	SOXTHERM	GC-MS
PESTICIDES	D&C	HEXANE/ACETONE	SOXTHERM	GC-MS
EPH (DRO)	D&C	HEXANE/ACETONE	END OVER END	GC-FID
EPH (MIN OIL)	D&C	HEXANE/ACETONE	END OVER END	GC-FID
EPH (CLEANED UP)	D&C	HEXANE/ACETONE	END OVER END	GC-FID
EPH CWG BY GC	D&C	HEXANE/ACETONE	END OVER END	GC-FID
PCB TOT / PCB CON	D&C	HEXANE/ACETONE	END OVER END	GC-MS
POLYAROMATIC HYDROCARBONS (MS)	WET	HEXANE/ACETONE	MICROWAVE TM218.	GC-MS
C8-C40 (C8-C40) EZ FLASH	WET	HEXANE/ACETONE	SHAKER	GC-EZ
POLYAROMATIC HYDROCARBONS RAPID GC	WET	HEXANE/ACETONE	SHAKER	GC-EZ
SEMI VOLATILE ORGANIC COMPOUNDS	WET	DCM/ACETONE	SONICATE	GC-MS

LIQUID MATRICES EXTRACTION SUMMARY

ANALYSIS	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
PAH MS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
EPH	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
EPH CWG	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
MINERAL OIL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
PCB 7 CONGENERS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
PCB TOTAL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
SVOC	DCM	LIQUID/LIQUID SHAKE	GC MS
FREE SULPHUR	DCM	SOLID PHASE EXTRACTION	HPLC
PEST OCP/OPP	DCM	LIQUID/LIQUID SHAKE	GC MS
TRIAZINE HERBS	DCM	LIQUID/LIQUID SHAKE	GC MS
PHENOLS MS	DCM	SOLID PHASE EXTRACTION	GC MS
TPH by INFRARED (IR)	TCE	LIQUID/LIQUID SHAKE	HPLC
MINERAL OIL by IR	TCE	LIQUID/LIQUID SHAKE	HPLC
GLYCOLS	NONE	DIRECT INJECTION	GC MS

Identification of Asbestos in Bulk Materials

The results for asbestos identification for soil samples are obtained from possible Asbestos Containing Material, removed during the 'Screening of soils for Asbestos Containing Materials', which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: -
Trace -Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in MDHS 100.

The identification of asbestos containing materials falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Last Updated : 2010/09/08

SDG:	141018-10	**Location:**	Phase 2-3	**Order Number:**	7716 L/F
Job:	H_CWMENV_NAN-1	**Customer:**	CWM Environmental Ltd	**Report Number:**	294068
Client Reference:		**Attention:**	Mike Lewis	**Superseded Report:**	

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP -No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals -total metals must be requested separately.

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

14. **Product analyses** -Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

Sample Deviations

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Holding time exceeded before sample received**
5	**Samples exceeded holding time before presevation was performed**
§	**Sampled on date not provided**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to sampled on date**
&	**Sample Holding Time exceeded - Late arrival of instructions.**

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.