



Environmental Monitoring Report

Reporting Period
01/08/2011-28/08/2011



Former Bayer Crop Science Site
Hauxton
Cambridgeshire

14th September 2011

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On behalf of:

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1.0 Introduction

1.1. General

This report has been prepared and submitted in accordance Environmental Permitting Regulations 2007 with reference to the approved Deployment of Vertase FLI's Environmental Permit Ref: ERP/QP3293FY for the remediation works at the former Bayer CropScience site Hauxton, and in accordance with Condition 4 of the planning permission dated 5th February 2010.

The time period that this report represents is from the 1st of August 2011, until the 28th of August 2011.

1.2. The site

The site is the former Bayer Crop Science site, Cambridge Road, Hauxton, Cambridge. The site was used for the storage and production of agrichemicals from the 1940's through to ceasing production in 2004. The site was used primarily for the synthesis, formulation, packaging and storage of agrichemicals (both herbicides and pesticides). It is this former historical use that has led to the contamination legacy of soil and groundwater at the site.

There is also a Waste Water Treatment Plant (WWTP) and other agricultural land which is part of the former land holding of Bayer Crop Science and is part of that controlled by Harrow Estates. The WWTP will be utilised to assist in the treatment of recovered groundwater and will be improved to undertake this task and then maintained for the duration of the remediation. This area of the site will not be subject to remediation as part of this phase of works but will be remediated as a separate phase of work under a separate contract and separate Remediation Method Statement in the future.

1.3. Remediation Brief and Philosophy

The philosophy for this remediation project is set out in detail in the agreed Remediation Method Statement. The remediation of the site has been developed from knowledge of the site gained from historical site investigations, Atkins Preliminary Conceptual Model Report August 2006 (interpretative report defining the current and correct understanding of the geological and

environmental conditions) and subsequent sampling and analysis defining the extent of contamination following further investigation. This information has allowed the conceptual site model and pollutant linkages to be developed to form the remediation methodology. Whilst the remediation work itself is complex and varied, the philosophy is simple and defines the proposed remedial action required. This philosophy has been designed with the brief in mind. This brief can be defined as “a remediation to address all pollutant linkages and ensure that following remediation and re-development no unacceptable risks will remain associated with the treated area of the site by applying the best available techniques not entailing excessive costs (BATNEEC)”.

The philosophy behind the remediation is to remove all uncertainty relating to soils and groundwater within the site area by the excavation, characterisation and treatment. All pathways between the identified sources and receptors will be removed and the contaminant mass within soils reduced as far as the practical limits of cost effective technology permit. The Remediation Method Statement sets out how this philosophy or strategy will be achieved practically on site and validated with confirmative post remediation risk assessment.

These remediation works are also required to satisfy the regulators that adequate remediation works have been completed to satisfy their requirements under Part IIa of the Environmental Protection Act 1990.

2.0 Monthly Progress

Week 73. Week Commencing 1st August 2011

No excavations undertaken were due to restricted space on site. Restoration using treated soils continued in the centre of the site. A number of stockpiles and treatment beds were relocated from the south eastern corner to the west of the site to allow for further excavation and validation in the south east corner of the site. Concrete slab from the eastern parts of the site was broken out and crushed for future use. Turning of treatment beds continued to promote biological degradation and dry the material in preparation for reinstatement.

Week 74. Week Commencing 8th August 2011

Excavation was undertaken in the southeast corner of the site with materials being stockpiled in the east of the site. Excavation of Gault clay was undertaken in the north of the site in preparation for the removal of the bentonite wall structure. Restoration of remediated soils continued in the centre of the site and northern parts of the site. The breaking out and crushing of concrete slab continued in the eastern part of the site, followed by a trial pitting exercise to investigate the geology and potential contamination in the eastern parts of the site. Turning of treatment beds was undertaken to promote biological degradation and dry the material in preparation for reinstatement. The north eastern boundary wall was demolished in preparation for the removal of the bentonite wall works.

Week 75. Week Commencing 15th August 2011

Excavation of the bentonite wall structure commenced in grid square G10 with impacted bentonite and marl being sent initially to treatment beds, as the materials became less impacted in the north of the site this material once excavated was used directly as fill in the centre of the site. The excavations along the route of the bentonite wall were restored with marl excavated from the southeast of the site.

Restoration of remediated soils continued in the centre of the site and along the bentonite wall. The breaking out and crushing of concrete slab continued in the eastern part of the site. Turning of treatment beds was undertaken to promote biological degradation and dry the material in preparation for reinstatement.

Week 76. Week Commencing 22nd August 2011

Excavation of the bentonite wall structure continued in grid squares I6, J5 and K5 with very low impacted bentonite and marl being used directly as fill in the centre of the site. The excavations along the route of the bentonite wall were restored with marl excavated from the southeast of the site.

Restoration of remediated soils continued in the centre of the site and along the bentonite wall. The breaking out and crushing of concrete slab continued in the eastern part of the site. Turning of treatment beds was undertaken to promote biological degradation and dry the material in preparation for reinstatement. Off site disposal of one particularly recalcitrant treatment bed commenced with this waste being transported under the hazardous waste regulations to an off site licensed disposal facility.

3.0 Environmental Monitoring Summary

The environmental monitoring locations detailed in the Environmental Permit deployment form for the site are highlighted in drawing D907_33C in Appendix A.

The detailed environmental monitoring data can be found in Appendix B, the following chapters summarise the findings from the monitoring undertaken by Vertase FLI Site Engineers.

3.1. *Odour and VOC Emissions*

Odour and VOC monitoring around the site boundary commenced on the 22nd March 2010 and has been undertaken twice daily at eight compass points around the site boundary, in the public access areas. Odour and VOC related observations in between the eight compass points around the site are also noted by the Vertase FLI representative undertaking the monitoring.

In addition to physical control via covers and management of activities odour controlling suppressants and masking agent are being used around the site boundary to mitigate the impact of odour migration off site. Three mobile telescopic misting fans were used on site and a full boundary misting system was also used to supplement the mobile units.

Site generated odours including those from the remediation processes and the odour suppression systems observed during the monitoring rounds beyond the site boundary are listed in the environmental monitoring data spreadsheet in Appendix B.

The Vertase FLI Environmental Engineers and Site Management team have been working closely to prevent odours and VOC's generated by the remediation processes migrating off site, along with trying to achieve a fine balance of using a specific odour control fragrance's at a variety of dilutions to reduce the impact of any odours detected off site.

The Environmental Engineers have logged the actions undertaken on site to reduce the impact of VOC/odours off site, these are noted in the environmental monitoring data in Appendix B. All mitigation measures have been in accordance with the actions stipulated in the deployment

form, including some additional actions to reduce the potential of odour nuisance e.g. repositioning of mobile odour control systems.

During the twice daily environmental monitoring a Photoionisation Detector (PID) has been used to record VOC's present beyond the site boundary. The PID will not function correctly in wet weather conditions, this has prevented real-time monitoring on a number of days and data is missing from the environmental monitoring spreadsheet for this reason. During the reported period VOC's were detected by the PID (Limit of detection of 0.1ppm) beyond the site boundary on the following occasions:

On the 10/08/2011 at 17:20 the PID registered an intermittent peak of 0.1ppm at the northern monitoring location, odours related to the odour control solution sprays were intermittent and barely traceable. No action required.

On the 12/08/2011 at 09:51 the PID registered an intermittent peak of 0.3ppm at the northeast, southwest, west and northwest monitoring locations, odours related to the odour control solution sprays were intermittent and barely traceable. No action required.

Long term passive VOC monitoring is carried out at eight compass point locations around the site boundary, in the public accessible areas, further monitoring locations are located within the centre of the waste water treatment works, on Church Road, Hauxton and Queens Close, Harston.

The results for the long term passive VOC monitoring carried out between 07/07/2011 and 11/08/2011 are reported in appendix C. The analysis undertaken for this monitoring period indicates that the majority of the VOC's detected are around the baseline, except for Tetrachloroethene which is on occasion slightly raised above the baseline values but are well below the levels considered to be within acceptable limits for published criteria.

The analysis for Church Road, Hauxton and Queens Close, Harston indicates there are some site related VOC's detected at these locations, but at levels that are considered to be within acceptable limits for published criteria.

The 28 day passive VOC monitoring results have been forwarded to the Health Protection Agency for review. The HPA have undertaken independent risk assessment upon the data provided and have provided a positive non technical summary which is available on South Cambridgeshire District Councils website.

3.2. Dust Fibre and Particulate Emission

Both real time dust measurement and long term dust deposition monitoring has been undertaken around the site boundary at six compass point locations, north, east, south, west with two monitoring positions in the northeast (drawing D907_30C, Appendix A).

Real time airborne dust monitoring is undertaken as a minimum twice daily by an Environmental Engineer using a 'Dustmate' dust particle monitor around the site boundary as part of the environmental monitoring schedule, results are recorded in the environmental monitoring spreadsheet (Appendix B). The 'Dustmate' dust particle monitor will not function correctly in wet weather conditions, therefore on a number of days and data is missing from the environmental monitoring spreadsheet for this reason. Dust migration is however less likely in wet weather conditions.

Dust particle measurements at each monitoring location have varied, with the higher dust readings being generally at the locations adjacent to the heavily trafficked Cambridge Road (A10). The average Total Suspended Particulates (TSP) reading around the site is $112.55\mu\text{g}/\text{m}^3$, the average PM10 dust reading around the site is $61.57\mu\text{g}/\text{m}^3$. Where a potential for dust has been observed, on site dust suppression methods have been deployed immediately to reduce the generation of site dust and all haul routes are continually wetted to prevent dust release.

Directional dust deposition gauges at the six monitoring locations are analysed every fortnight for Effective Area Coverage (EAC) (percentage of dust deposition relating to the potential to cause nuisance), results generated by an external laboratory are presented in Appendix D.

Baseline dust monitoring undertaken between 19/02/2010 to 19/03/2010 (4 locations monitored) recorded a maximum dust deposition rate of 0.54%EAC at the western monitoring location.

Dust monitoring undertaken from the 25/07/2011 to 15/08/2011 (6 locations monitored) recorded a maximum dust deposition rate was 1.05%EAC at both the north and south monitoring locations. All other locations had a maximum dust deposition rate of 0.76%EAC, or less.

Dust monitoring undertaken from the 15/08/2011 to 30/08/2011(5 locations monitored only due to 1# damaged on site) recorded a maximum dust deposition rate was 1.40%EAC at the south monitoring location. All other locations had a maximum dust deposition rate of 0.67%EAC, or less.

Dust deposition values of less than 2.5% are regarded as having a very low nuisance potential. Only when percentages rise from 2.5% – 5% EAC is dust considered to have a low nuisance causing potential. During the reported period dust, fibre and particle emissions have been low, and have not caused visual dusting off site.

3.3. Control of Mud and Debris

A pressure washer and a fully automatic wheel wash has been on site during the reporting period to allow all maintenance, plant delivery and off site disposal vehicles leaving contaminated parts of the site to be washed down thoroughly first, as not to take potentially contaminated mud and debris through the clean zone and off site. The movement of vehicles between the contaminated and clean parts of the site is strictly controlled by the site management team.

3.4. Noise

Noise monitoring around the site boundary commenced on the 22nd March 2010 and has been undertaken twice daily as a minimum, recording findings at eight compass points around the site boundary in the public access areas (drawing D907_30C, Appendix A).

Site operations are restricted to 8am to 6pm and site noise levels are consistently at an average acceptable low background level of 68dB. Exceedance's of the 80dB threshold (stipulated in the Environmental Permit deployment document) have been recorded during the monitoring period, however traffic along the A10 has been identified as the source of the slightly elevated noise levels. Data is recorded in the environmental monitoring data spreadsheet, Appendix B.

3.5. Litter

All litter occurrences are removed from within the site, and off site around the boundary fence, and disposed of appropriately. Litter is generally low off site, and is well managed on site, by all site personnel. All recordings of the presence of litter are noted in the Environmental Monitoring Data spreadsheet in Appendix B.

4.0 Surface and Ground Water Condition

4.1. Surface Water Monitoring

As part of the environmental monitoring programme, the Riddy Brook located to the east of the site (Drawing D907_33C, Appendix A) is inspected daily as a minimum at two locations up and down stream for general observations, on any discolouration, sedimentation etc. The observations are recorded on the Environmental Monitoring Data (Appendix B). Throughout the monitoring period there have been no visual signs that the remediation works on site are having any impact on the Riddy Brook.

The water level within the Riddy Brook is monitored and recorded on a daily basis at a minimum of two locations, footbridge adjacent to Mill House (Riddy 1) and the most southerly footbridge over the Riddy Brook, adjacent to the eastern corner of the site (Riddy 4). Two further locations are also monitored, Riddy 2 at the footbridge over the Riddy Brook approximately 150m southeast of Mill House and the former fire exit bridge (Riddy 3), 210m southeast of Mill House. All the water level data is recorded in the main groundwater level data sheet in Appendix E.

During the monitoring period there have not been any significant changes in levels along the Riddy Brook.

4.2. Surface Water Sampling and Analysis

Upstream and downstream water samples from both the River Cam (Granta) and the Riddy Brook are taken on a monthly basis. The results for samples taken on 27th July 2011 are presented in Appendix F, results for samples taken on the 31st August 2011 are pending laboratory analysis and will be reported in a supplemental report.

The surface water analysis of the 27th July 2011 shows trace levels of Mecoprop (2.9 µg/l) and Tetrachloroethylene (2 µg/l) detected in all surface water samples analysed, River Cam (Granta) up and down stream and the Riddy Brook up stream and down stream.

These trace levels identified in the July 2011 sampling round have been recorded in the baseline data collected prior to the commencement of the remediation project and are not related to a specific site incident.

4.3. Groundwater Level Monitoring

Groundwater levels are recorded within at least 11 borehole locations onsite on a daily basis, to ensure the groundwater beneath the site remains in a static condition during the remediation works and does not pose a risk to surface and groundwater bodies beyond the site boundary.

During the initial excavation works on site very little groundwater has been encountered, the majority of excavations located in the northern parts of the site have exceeded a depth of 4m below current ground level and have penetrated the Gault Clay in parts.

The main source of water encountered during excavations has been discontinuous contaminated perched water present in the Made Ground. This water has been captured and treated in the Waste Water Treatment Works associated with the site.

From approximately 2-3m below ground level discontinuous thin sand and gravel bands have also produced some limited quantities of water, which have tended to dry up within 24 hours.

The groundwater levels measured at locations around the site are shown in drawing D907_31G, in appendix A. The groundwater levels are presented in Appendix E.

A groundwater level graph has been constructed to illustrate the variation in groundwater level at the monitoring locations across the site for the reporting period (Appendix G).

The graph constructed (Appendix G) illustrates that there have been little changes to groundwater levels within the boreholes across the site during the monitoring period. However upon completion of the bentonite wall removal borehole S3/4 on the eastern side of the wall has dried up completely and remains dry.

There has been limited perched groundwater flow to some parts of the marl at approximately 2m below ground level to the south of the site during the excavation in this area, these have been easily managed and have generally stopped flowing after a day or so.

4.4. Groundwater Sampling and Analysis

Groundwater samples from 11 monitoring locations on site are taken on a monthly basis. The results for samples taken on 27th July 2011 and the 31st August 2011 are presented in appendix F.

The contaminant concentrations present in the samples taken on the 27th of July and the 30th August 2011, have a similar distribution of contaminants when compared to the baseline data collected during the summer of 2008, however there is a considerable reduction in concentration of the main contaminants in the groundwater samples adjacent to the areas that have undergone remediation.

5.0 Waste Water Treatment Plant

The Waste Water Treatment Plant (WWTP) is part of the former land holding of Bayer Cropscience and is part of that controlled by Harrow Estates. The WWTP was an integral part of the former Bayer Crop Science site, located to the west of the A10, specifically designed to treat and discharge liquid waste products derived from the production of agrochemicals (both herbicides and pesticides) and sewage from the facility.

The WWTP has been previously operated (until the 15th of March 2010) by Alpheus Environmental Ltd. to maintain the required discharge volume generated by the groundwater pumping systems on the main Bayer Cropscience site along the bentonite cut off wall and the high bay warehouse.

Vertase FLI have established a maintenance programme and control procedures to ensure the WWTP is operated within the constraints of the discharge consent. Essential system checks and improvements have been made to the plant to ensure it can treat the volume and concentrations of influent generated by the continued groundwater control and the contaminated water recovered during the remediation activities on the main site.

The composition of the water discharged to the River Cam (Granta) must not exceed the permitted levels in paragraphs 1.7.1, 1.8.1 and 1.8.2 of the discharge consent PR1NF/1744D01 Issued and regulated by the Environment Agency.

The treated effluent is sampled at the specified location as stipulated in the discharge consent. Vertase FLI also sample the influent to the WWTP, along with a sample taken after the primary carbon treatment, this is to assess the performance of main treatment process of the WWTP and highlight potential expiry of the primary carbon vessels.

The fortnightly samples are analytically tested for the water quality parameters and the chemical compounds specified in paragraph 1.7.1 of the discharge consent PR1NF/1744 D 01. The data is tabulated and presented in Appendix H along with the raw data from the laboratory reports.

Throughout the reporting period the WWTP has been successful in treating the compounds listed within paragraph 1.7.1 (consent PR1NF/1744D01) to acceptable levels for discharge to the River Cam (Granta) under the regulated discharge consent.

The Environment Agency carry out independent discharge monitoring at the WWTP on a monthly basis, during the reportable period Vertase FLI and Harrow Estates Plc have not been notified of any unacceptable effluent discharging to the River Cam (Granta) from the operating plant.

6.0 Contaminants Not Previously Identified

To fulfil the requirements of condition 4 and condition 9, Planning Condition Document ref:S/2307/06/f Issued 10/02/2010, Vertase FLI are continually undertaking soil characterisation sampling prior to remediation processes to identify the types and concentrations of contaminants present in the specific grid squares across the entire site.

The soil characterisation samples undergo a series of laboratory analyses consisting of targeted analysis, screening against known contaminants and a full GCMS scan to identify any contaminants not previously identified.

All characterisation samples analysed and found to contain previously unidentified contaminants are reported in accordance with condition 9 of the Planning Condition Document ref:S/2307/06/f Issued 10/02/2010.

From the commencement of site works (15/03/2010) to 28/08/2011, eighty six characterisation samples have been taken by Vertase FLI in partnership with Atkins to assess the contamination type and concentrations prior to remediation of the materials. Thirty eight characterisation samples analysed contained a total of twenty five compounds / potential contaminants that had not been previously identified.

A summary table of the soil characterisation testing is presented in Appendix I, the previously unidentified compounds are listed here, with comments regarding the origin and likely usage on site.

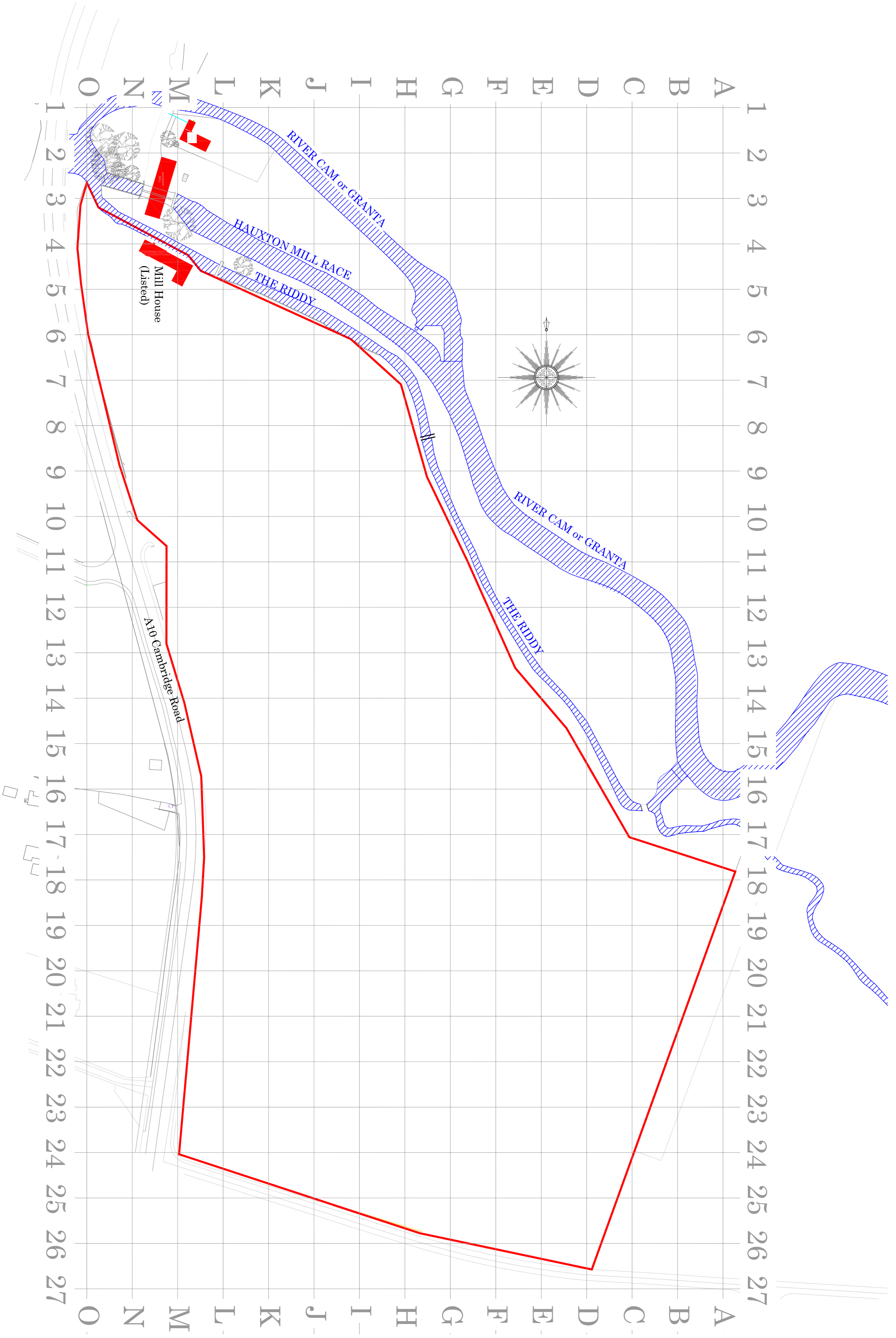
The remediation project consultants Atkins continuously review the soil characterisation analysis and report previously unidentified contaminants in accordance with condition 9, Planning Condition Document ref:S/2307/06/f Issued 10/02/2010.

Appendix A

Drawings

Legend

- Buildings to Remain
 - Water Course
 - Site Boundary
- Drawing Base : Ref
LW/HAUX-002/2006



Rev.	Description	Revised By	Date
1	FIRST ISSUE		21 April 2008

Vertase
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 Hertford Office: Tel: 01280 812389
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Site Address:
Bayer Site
Hauxton
Cambridge

Client: Harrow Estates

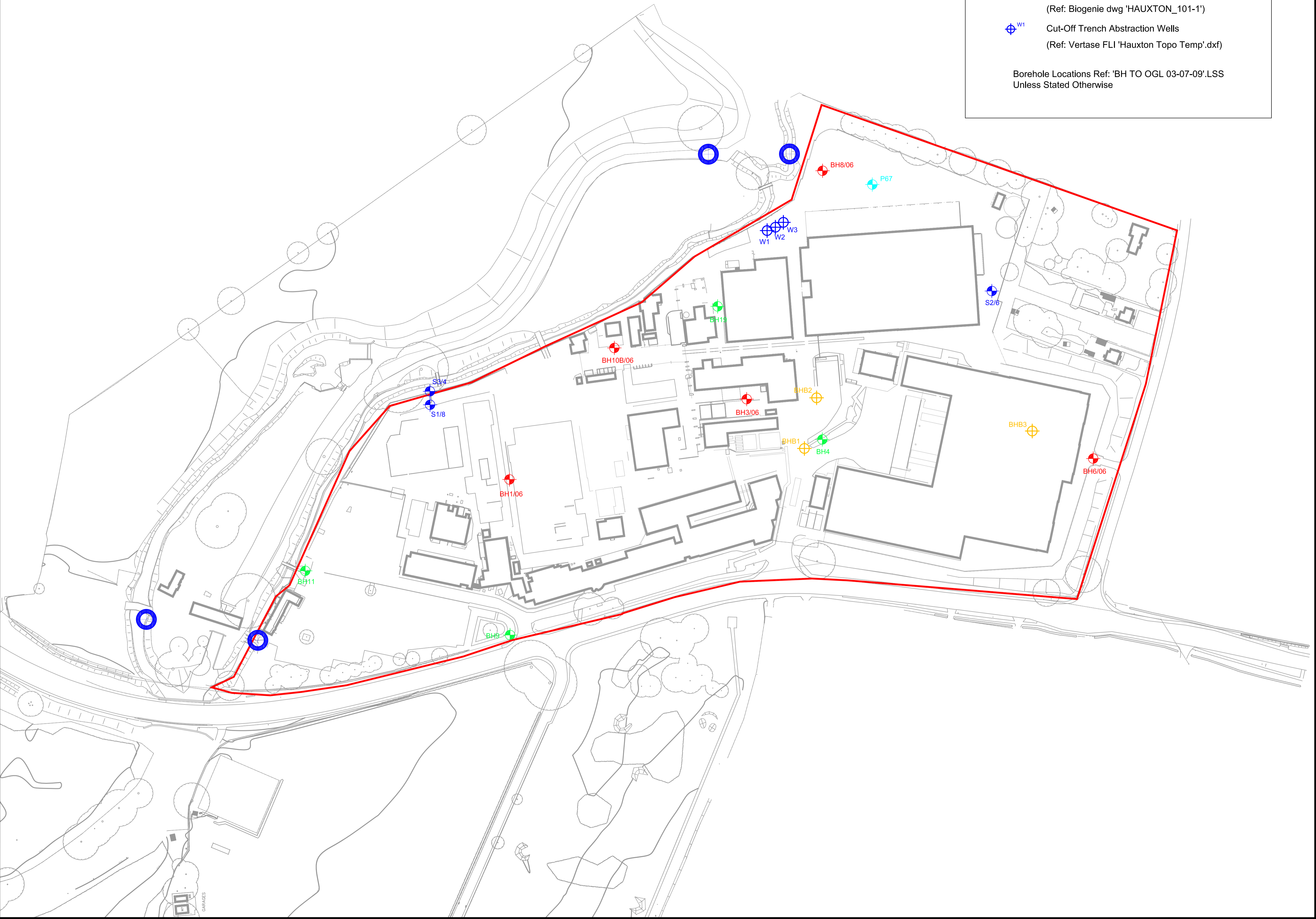
Title: Blank Site Plan with Grid

Drawn: JWH	Checked: MA	Approved: MA
Dwg: 0907_07	Contact: 907BR4	Scale: 1:1000

Legend

-  BH1/06 Atkins Exploratory Hole Location
-  BH7, P67 Previous Borehole Location
-  Water Sampling Location
-  BHB1 Biogenie Boreholes (Ref: Biogenie dwg 'HAUXTON_101-1')
-  W1 Cut-Off Trench Abstraction Wells (Ref: Vertase FLI 'Hauxton Topo Temp'.dxf)

Borehole Locations Ref: 'BH TO OGL 03-07-09'.LSS Unless Stated Otherwise



E	BHB1,BHB2,BHB3, W1,W2,W3,BH3-06 & BH08-06 Added (BH3-06 & BH08-06 Ref:D907_31 Iss 0)	MRG	17-08-09
D	BH1 Removed & BH19 Added	MRG	07-07-08
C	BH1 Added	JWH	11 June 2008
B	BH5/06 Erased S2/6 Added	JWH	09 June 2008
A	Boreholes Erased	JWH	14 May 2008
	FIRST ISSUE		23 April 2008

Rev.	Description	Revised By	Date
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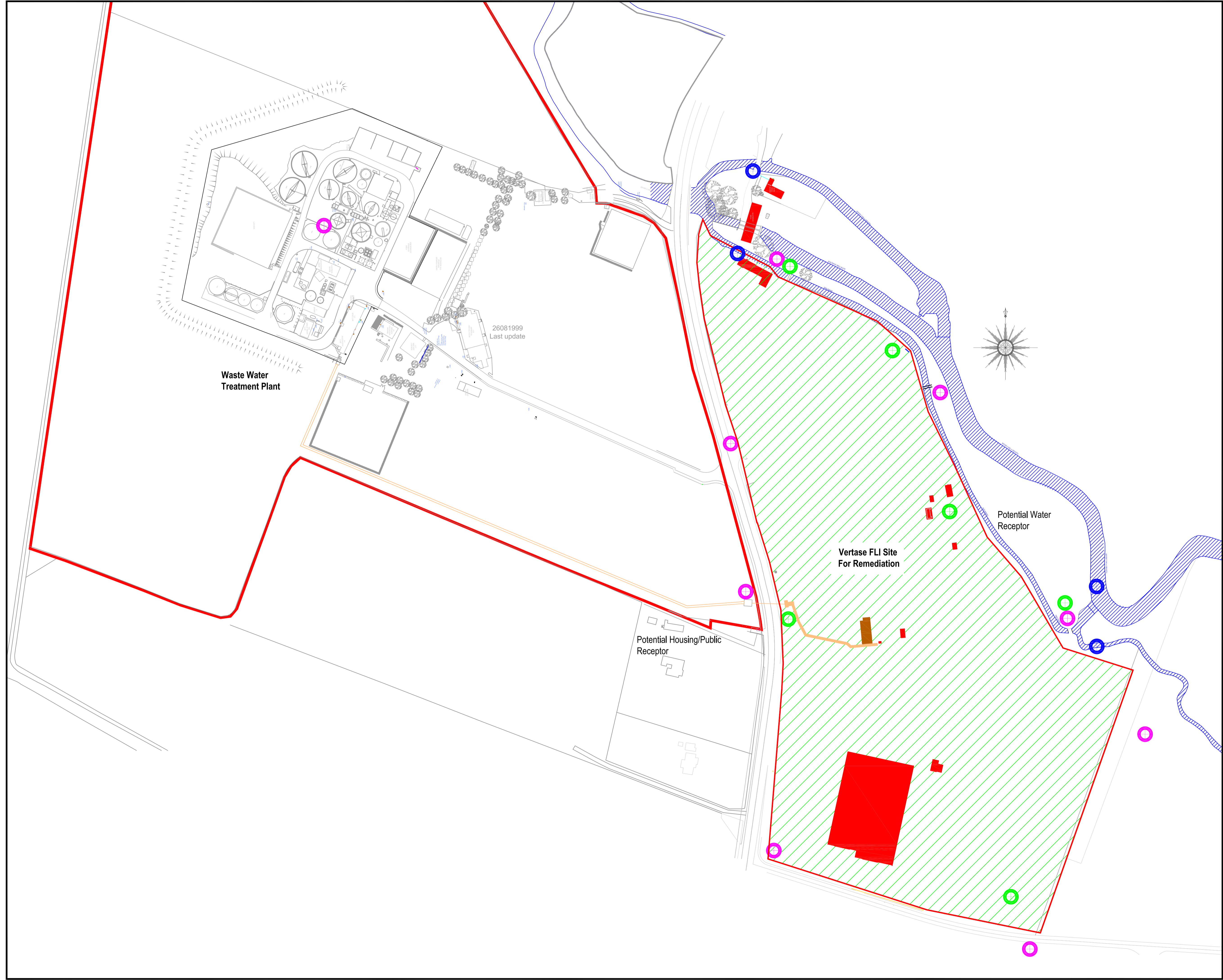
Site Address: Bayer Site Hauxton Cambridge	Rev: E
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Title: Retained Boreholes for Monitoring & Reference

Client: Harrow Estates

Drawn: JWH	Checked: MA	Approved: MA
------------	-------------	--------------

Dwg: D907_31	Contract: 907BRI	Scale: 1:1000
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Legend

- Sub-Station/Buildings to Remain
- Water Course
- Vertase FLI Site for Remediation
- Mobile Treatment Licence Boundary
- Site Effluent Sump and Ducting
- Diffusion Tubes /Monitoring Location
- Dust Monitoring Location
- Water Sampling Location

Drawing Base : Ref
LW/HAUX-002/2006

Waste Water Treatment Plant

26081999
Last update

Vertase FLI Site For Remediation

Potential Water Receptor

Potential Housing/Public Receptor

C	Dust Monitoring Locations Amended	MRG	14 July 08
B	Dust Monitoring Location Amended	JWH	09 June 08
A	Water Sampling Points Added Treatment Building Amended FIRST ISSUE	JWH	15 May 2008 21 April 2008
Rev.	Description	Revised By	Date



- Bristol Head Office: Tel: 01275 397600 Fax: 01275 397601
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- email: info@vertasefli.co.uk
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Site Address:
Bayer Site
Hauxton
Cambridge

Rev:
C

Title: Environmental Monitoring Plan

Client: Harrow Estates

Drawn: JWH	Checked: MA	Approved: MA
Dwg: D907_33	Contract: 907BRI	Scale: 1:1250

Appendix B

Environmental Monitoring Data

Appendix C

Long term Passive VOC Monitoring

LABORATORY ANALYSIS REPORT

REPORT NUMBER	GCMS 4875
CUSTOMER	Vertase FLI Ltd
GRADKO LAB REFERENCE	GMSF 1237-1247
DATE SAMPLES RECEIVED	18.08.11
DESPATCH REF.NUMBER	SOR006001
JOB NUMBER	907BRI/5302
BOOKING IN REF.	E 4320

SEMI-QUANTITATIVE ANALYSIS FOR TOP 10 VOC'S ON TENAX DIFFUSION TUBES BY GC/MS

Analysis has been carried out in accordance with in-house method GLM 13

Tube Number	GRA 05723
Exposure Time(mins)	50400
Sample ID	WWTW

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Benzothiazole	75.09	0.74
Benzamide, N,N-dimethyl-	45.13	0.45
Tetrachloroethylene	21.74	0.22
Trichloroethylene	12.14	0.12
Formamide, N,N-dimethyl-	10.88	0.11
Cyclohexanone	10.76	0.11
Phenol	10.33	0.10
Benzene	8.56	0.08
m/p-Xylene	8.53	0.08
Toluene	7.63	0.08

Tube Number	GRA 02602
Exposure Time(mins)	50400
Sample ID	New Road

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Toluene	86.09	0.85
Benzamide, N,N-dimethyl-	32.86	0.33
m/p-Xylene	30.13	0.30
Benzothiazole	23.11	0.23

The Diffusion Tubes have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures calculations and assessments involving the exposure procedures and periods provided by the client are not within the scope of our UKAS accreditation. Those results obtained using exposure data shall be indicated by an asterisk. Any queries concerning the data in this report should be directed to the Laboratory Manager Gradko International Ltd.

REPORT OFFICIALLY CHECKED

Gradko International Ltd
 This signature confirms the authenticity of these results
 Signed..... *L. Gates*
 L. Gates, Laboratory Supervisor

LABORATORY ANALYSIS REPORT

o-Xylene	17.06	0.17
Ethylbenzene	14.59	0.14
Phenol	12.74	0.13
Benzene	12.44	0.12
Tetrachloroethylene	12.23	0.12
Formamide, N,N-dimethyl-	11.15	0.11

Tube Number GRA 04295
Exposure Time(mins) 50400
Sample ID Queens Close

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
m/p-Xylene	97.83	0.97
Ethylbenzene	94.34	0.94
o-Xylene	44.94	0.45
Benzamide, N,N-dimethyl-	36.29	0.36
Benzothiazole	32.87	0.33
Phenol	24.34	0.24
Toluene	19.15	0.19
Heptane, 2,2,4,6,6-pentamethyl-	16.02	0.16
Tetrachloroethylene	12.24	0.12
Benzene	10.82	0.11

Tube Number GRA 03438
Exposure Time(mins) 50400
Sample ID NW

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Tetrachloroethylene	191.04	1.90
Benzene, 1,2,3-trichloro-4-methyl-	65.23	0.65
Trichloroethylene	60.46	0.60
Toluene	51.97	0.52
Benzene, 1,2,4-trichloro-3-methyl-	40.44	0.40
Benzamide, N,N-dimethyl-	33.20	0.33
m/p-Xylene	32.90	0.33
Phenol	32.46	0.32
Benzene, 1,2,4-trichloro-	20.61	0.20
Benzothiazole	19.04	0.19

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REPORT OFFICIALLY CHECKED

Gradko International Ltd
This signature confirms the authenticity of these results
Signed.....*L. Gates*.....
L. Gates, Laboratory Supervisor

LABORATORY ANALYSIS REPORT

Tube Number GRA 05623
Exposure Time(mins) 50400
Sample ID SE

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Tetrachloroethylene	264.17	2.62
Benzene, 1,2,3-trichloro-4-methyl-	126.45	1.25
Trichloroethylene	78.38	0.78
Benzene, 1,2,4-trichloro-3-methyl-	54.81	0.54
Toluene	50.92	0.51
m/p-Xylene	40.23	0.40
Benzene, 1,2,4-trichloro-	33.61	0.33
Benzene, 1,4-dichloro-2-methyl-	31.80	0.32
Phenol	25.97	0.26
Benzothiazole	25.39	0.25

Tube Number GRA 06071
Exposure Time(mins) 50400
Sample ID W

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Tetrachloroethylene	403.42	4.00
Heptadecane	397.71	3.95
Octadecane	318.77	3.16
Heptadecane, 4-methyl-	168.09	1.67
Heptadecane, 3-methyl-	144.01	1.43
Heptadecane, 2-methyl-	142.97	1.42
Hexadecane	113.54	1.13
Nonadecane	112.72	1.12
Benzene, 1,2,3-trichloro-4-methyl-	97.50	0.97
Toluene	45.21	0.45

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Signed..... *L. Gates*
L. Gates, Laboratory Supervisor

LABORATORY ANALYSIS REPORT

Tube Number GRA 03924
Exposure Time(mins) 50400
Sample ID S

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Tetrachloroethylene	125.88	1.25
Benzene, 1,2,4-trichloro-3-methyl-	30.99	0.31
Trichloroethylene	26.65	0.26
Toluene	26.35	0.26
m/p-Xylene	23.63	0.23
Phenol	20.52	0.20
Ethylbenzene	14.96	0.15
Benzene, 1,2,4-trichloro-	13.29	0.13
Benzene, 1,4-dichloro-2-methyl-	13.11	0.13
o-Xylene	12.47	0.12

Tube Number GRA 03053
Exposure Time(mins) 50400
Sample ID E

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Tetrachloroethylene	298.90	2.97
Benzene, 1,2,3-trichloro-4-methyl-	141.89	1.41
Trichloroethylene	113.60	1.13
Benzene, 1,2,4-trichloro-3-methyl-	64.85	0.64
Toluene	54.08	0.54
m/p-Xylene	50.57	0.50
Naphthalene	48.61	0.48
Naphthalene, 1-methyl-	34.13	0.34
Benzene, 1,4-dichloro-2-methyl-	30.68	0.30
Benzene, 1,2,4-trichloro-	28.08	0.28

The Diffusion Tubes have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures calculations and assessments involving the exposure procedures and periods provided by the client are not within the scope of our UKAS accreditation. Those results obtained using exposure data shall be indicated by an asterisk. Any queries concerning the data in this report should be directed to the Laboratory Manager Gradko International Ltd.

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L. Gates, Laboratory Supervisor

LABORATORY ANALYSIS REPORT

Tube Number GRA 00146
Exposure Time(mins) 50400
Sample ID N

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Tetrachloroethylene	161.78	1.60
Benzene, 1,2,3-trichloro-4-methyl-	76.73	0.76
Benzene, 1,2,4-trichloro-3-methyl-	38.75	0.38
Phenol	36.09	0.36
Toluene	32.03	0.32
Trichloroethylene	31.37	0.31
m/p-Xylene	19.16	0.19
Benzamide, N,N-dimethyl-	16.58	0.16
Benzene, 1,2,4-trichloro-	15.62	0.15
Benzene, 1,4-dichloro-2-methyl-	15.09	0.15

Tube Number GRA 06118
Exposure Time(mins) 50400
Sample ID Church Road

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Naphthalene	666.51	6.61
Naphthalene, 1-methyl-	86.71	0.86
m/p-Xylene	50.39	0.50
Phenanthrene	49.12	0.49
Naphthalene, 2-methyl-	47.94	0.48
Acenaphthene	47.01	0.47
Toluene	40.73	0.40
Phenol	37.07	0.37
Fluorene	30.46	0.30
o-Xylene	30.44	0.30

The Diffusion Tubes have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures calculations and assessments involving the exposure procedures and periods provided by the client are not within the scope of our UKAS accreditation. Those results obtained using exposure data shall be indicated by an asterisk. Any queries concerning the data in this report should be directed to the Laboratory Manager Gradko International Ltd.

REPORT OFFICIALLY CHECKED

Gradko International Ltd
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Signed..... *L. Gates*
L. Gates, Laboratory Supervisor

LABORATORY ANALYSIS REPORT

Tube Number GRA 02027
Exposure Time(mins) 50400
Sample ID NE

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Tetrachloroethylene	507.08	5.03
Toluene	424.91	4.22
Trichloroethylene	93.29	0.93
Benzene, 1,2,3-trichloro-4-methyl- m/p-Xylene	92.29	0.92
	43.08	0.43
Benzene, 1,4-dichloro-	40.96	0.41
Benzene, 1,2,4-trichloro-3-methyl-	36.28	0.36
Bis(2-chloroethyl) ether	35.73	0.35
Naphthalene, 1-methyl-	28.36	0.28
Benzothiazole	26.81	0.27

Semi-quantitative results for ng on tube are calculated using toluene standards.

Analysts Name M.Angelova **Date of Analysis** 26.08.11
Date of Report 31.08.11

The Diffusion Tubes have been tested within the scope of Gradko International Ltd. Laboratory Quality Procedures calculations and assessments involving the exposure procedures and periods provided by the client are not within the scope of our UKAS accreditation. Those results obtained using exposure data shall be indicated by an asterisk. Any queries concerning the data in this report should be directed to the Laboratory Manager Gradko International Ltd.

REPORT OFFICIALLY CHECKED

Gradko International Ltd
This signature confirms the authenticity of these results
Signed.....*L. Gates*.....
L. Gates, Laboratory Supervisor

Appendix D

Directional Dust Monitoring

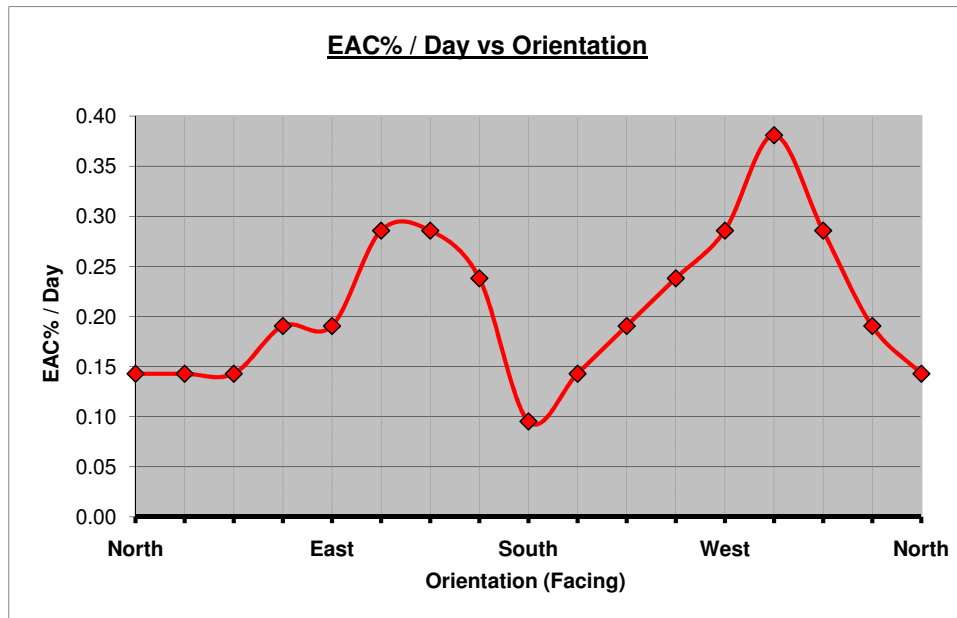
Gauge Number- West offsite Location 907BRI

Sticky Pad Data

Date On 25/07/2011 Date Off 15/08/2011 Days = 21

Clean = 100

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	97	360	North	0.14
20	96	337		0.19
40	94	314		0.29
60	92	291		0.38
80	94	269	West	0.29
100	95	246		0.24
120	96	223		0.19
140	97	200		0.14
160	98	177	South	0.10
180	95	154		0.24
200	94	131		0.29
220	94	109		0.29
240	96	86	East	0.19
260	96	63		0.19
280	97	40		0.14
300	97	17		0.14
315	97	0	North	0.14



Note: Cells coloured red are inputs.
The rest are either constants or calculated values.
The calculation is based on taking readings at 20mm intervals along the sticky pad.

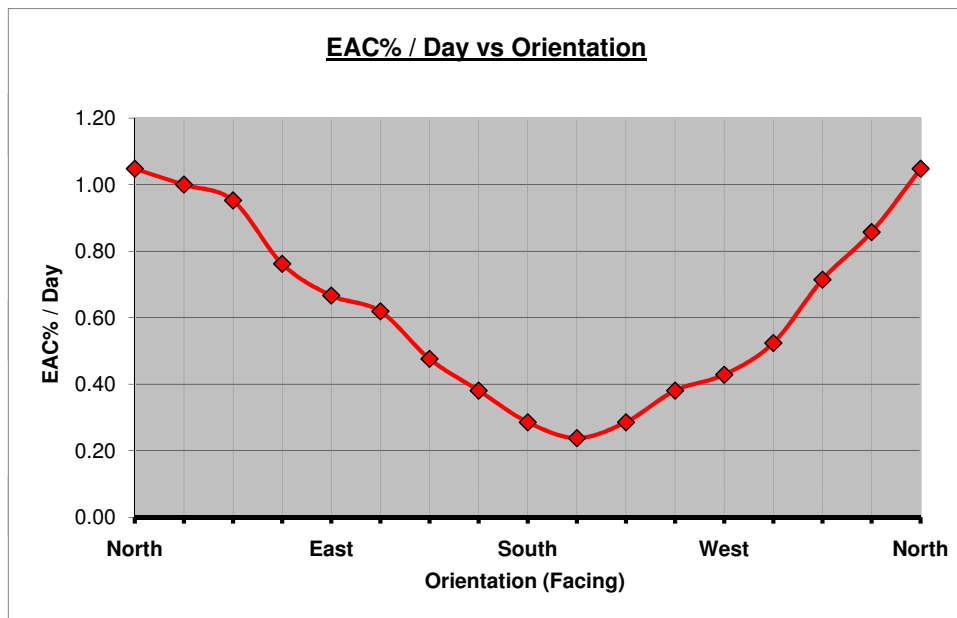
Gauge Number- North offsite Location 907BRI

Sticky Pad Data

Date On 25/07/2011 Date Off 15/08/2011 Days = 21

Clean = 100

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	78	360	North	1.05
20	82	337		0.86
40	85	314		0.71
60	89	291		0.52
80	91	269	West	0.43
100	92	246		0.38
120	94	223		0.29
140	95	200		0.24
160	94	177	South	0.29
180	92	154		0.38
200	90	131		0.48
220	87	109		0.62
240	86	86	East	0.67
260	84	63		0.76
280	80	40		0.95
300	79	17		1.00
315	78	0	North	1.05



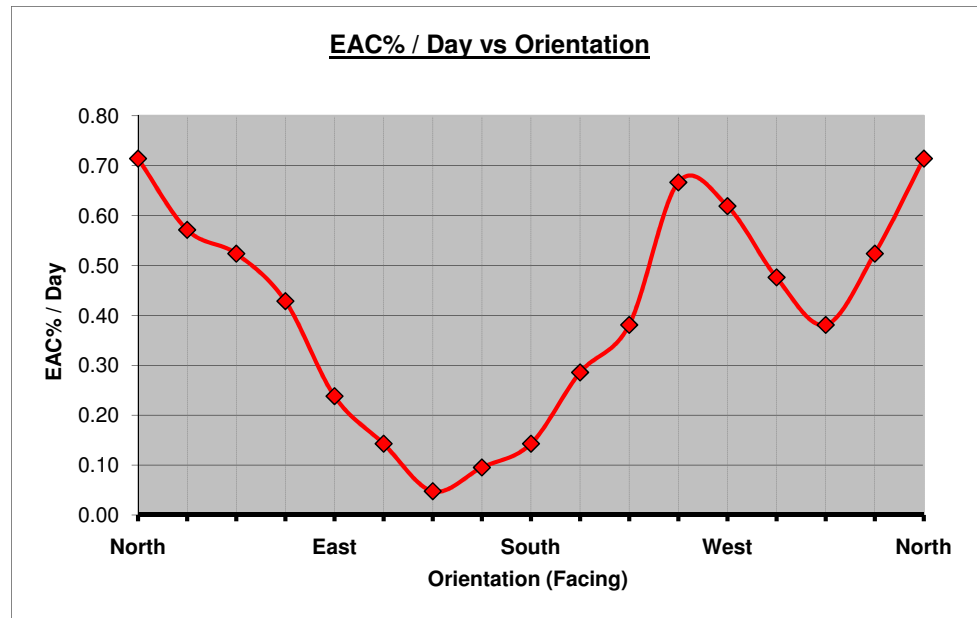
Note: Cells coloured red are inputs.
The rest are either constants or calculated values.
The calculation is based on taking readings at 20mm intervals along the sticky pad.

Gauge Number-North East Offsite Location 907BRI

Sticky Pad Data

Date On 25/07/2011 Date Off 15/08/2011 Days = 21
Clean = 100

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	85	360	North	0.71
20	89	337		0.52
40	92	314		0.38
60	90	291		0.48
80	87	269	West	0.62
100	86	246		0.67
120	92	223		0.38
140	94	200		0.29
160	97	177	South	0.14
180	98	154		0.10
200	99	131		0.05
220	97	109		0.14
240	95	86	East	0.24
260	91	63		0.43
280	89	40		0.52
300	88	17		0.57
315	85	0	North	0.71



Note: Cells coloured red are inputs.
The rest are either constants or calculated values.
The calculation is based on taking readings at 20mm intervals along the sticky pad.

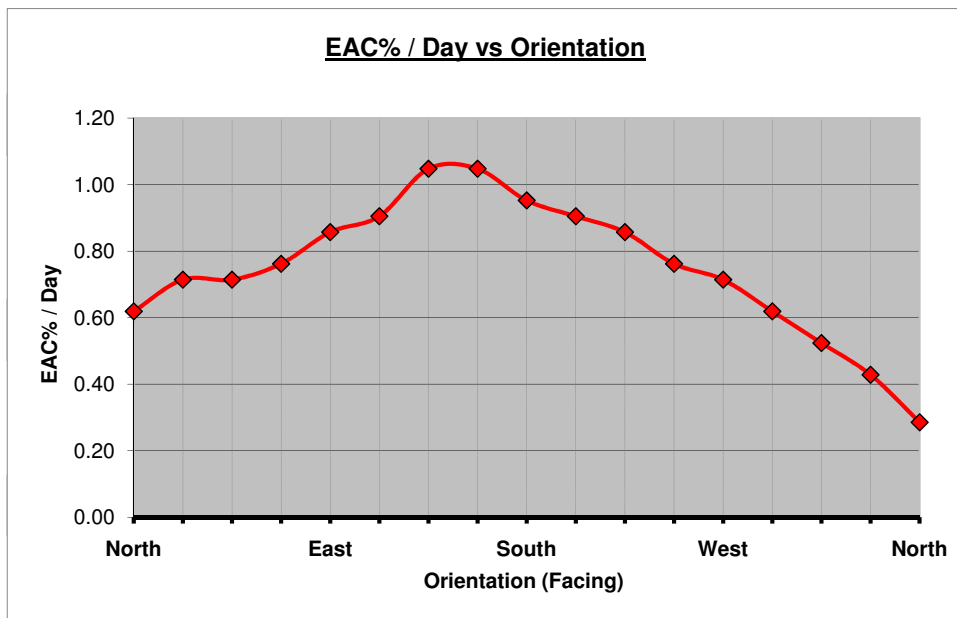
Gauge Number-South Onsite Location 907BRI

Sticky Pad Data

Date On 25/07/2011 Date Off 15/08/2011 Days = 21

Clean = 100

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	94	360	North	0.29
20	91	337		0.43
40	89	314		0.52
60	87	291		0.62
80	85	269	West	0.71
100	84	246		0.76
120	82	223		0.86
140	81	200		0.90
160	80	177	South	0.95
180	78	154		1.05
200	78	131		1.05
220	81	109		0.90
240	82	86	East	0.86
260	84	63		0.76
280	85	40		0.71
300	85	17		0.71
315	87	0	North	0.62



Note: Cells coloured red are inputs.
The rest are either constants or calculated values.
The calculation is based on taking readings at 20mm intervals along the sticky pad.

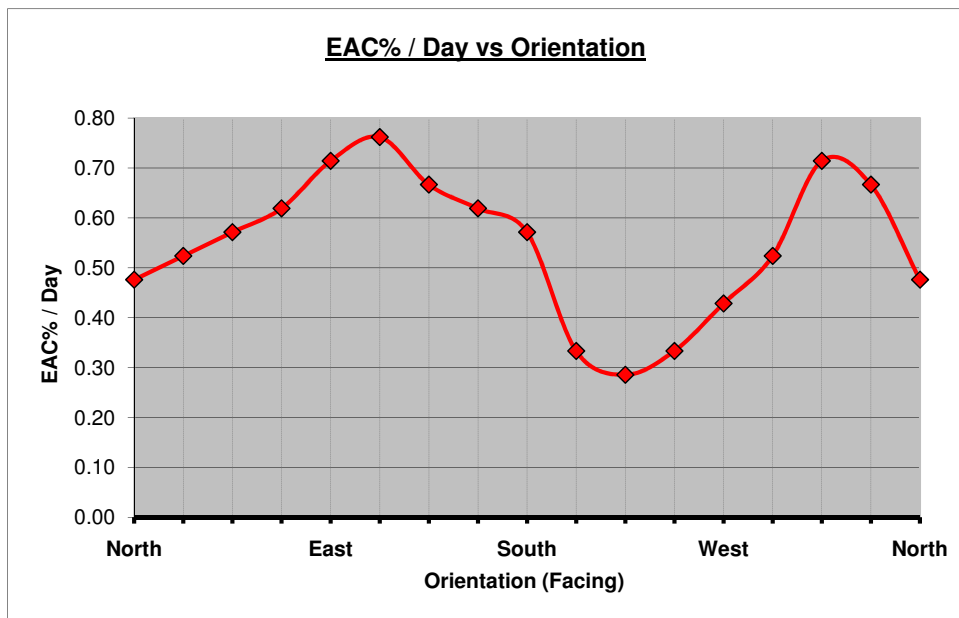
Gauge Number-North East Onsite Location 907BRI

Sticky Pad Data

Date On 25/07/2011 Date Off 15/08/2011 Days = 21

Clean = 100

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	90	360	North	0.48
20	86	337		0.67
40	85	314		0.71
60	89	291		0.52
80	91	269	West	0.43
100	93	246		0.33
120	94	223		0.29
140	93	200		0.33
160	88	177	South	0.57
180	87	154		0.62
200	86	131		0.67
220	84	109		0.76
240	85	86	East	0.71
260	87	63		0.62
280	88	40		0.57
300	89	17		0.52
315	90	0	North	0.48



Note: Cells coloured red are inputs.
The rest are either constants or calculated values.
The calculation is based on taking readings at 20mm intervals along the sticky pad.

Gauge Number-West side Entrance Location 907BRI

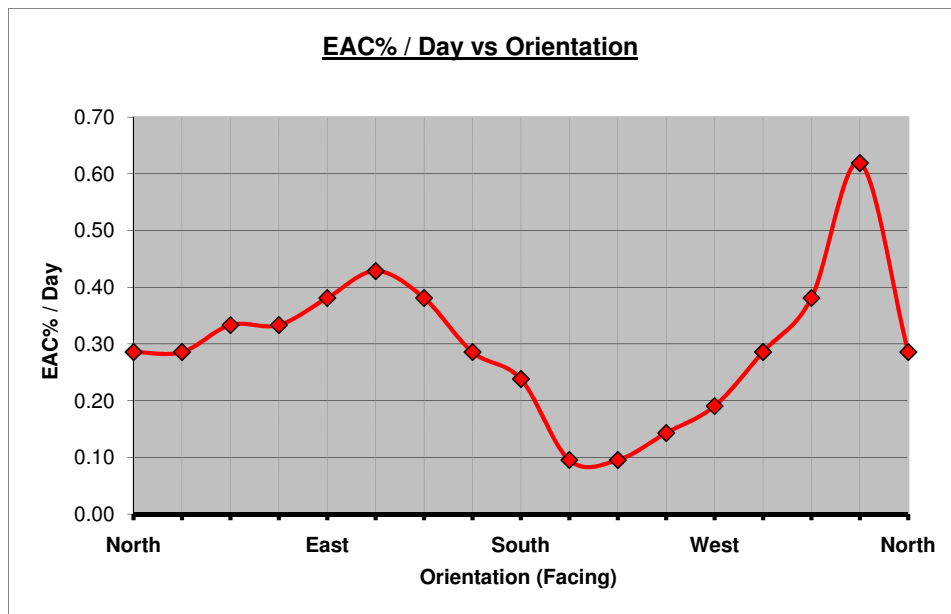
Sticky Pad Data

Date On 25/07/2011 Date Off 15/08/2011 Days = 21
Clean = 100

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	94	360	North	0.29
20	87	337		0.62
40	92	314		0.38
60	94	291		0.29
80	96	269	West	0.19
100	97	246		0.14
120	98	223		0.10
140	98	200		0.10
160	95	177	South	0.24
180	94	154		0.29
200	92	131		0.38
220	91	109		0.43
240	92	86	East	0.38
260	93	63		0.33
280	93	40		0.33
300	94	17		0.29
315	94	0	North	0.29

+

Note: Cells coloured red are inputs.
The rest are either constants or calculated values.
The calculation is based on taking readings at 20mm intervals along the sticky pad.

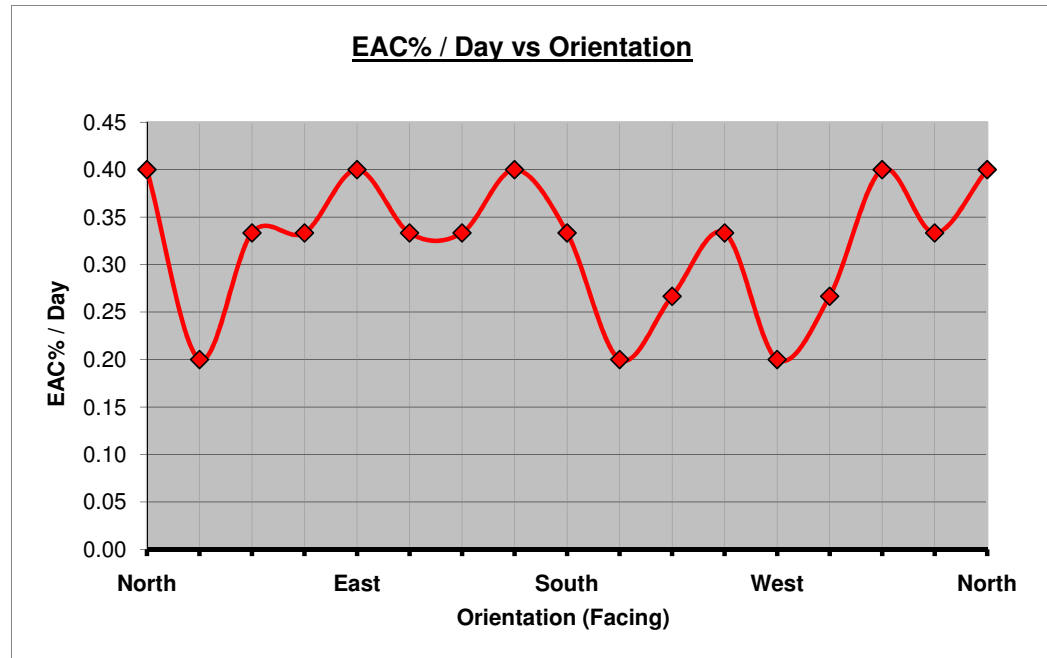


Gauge Number- West Location 907 BRI

Sticky Pad Data

Date On 15/08/2011 Date Off 30/08/2011 Days = 15
Clean = 100

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	94	360	North	0.40
20	95	337		0.33
40	94	314		0.40
60	96	291		0.27
80	97	269	West	0.20
100	95	246		0.33
120	96	223		0.27
140	97	200		0.20
160	95	177	South	0.33
180	94	154		0.40
200	95	131		0.33
220	95	109		0.33
240	94	86	East	0.40
260	95	63		0.33
280	95	40		0.33
300	97	17		0.20
315	94	0	North	0.40



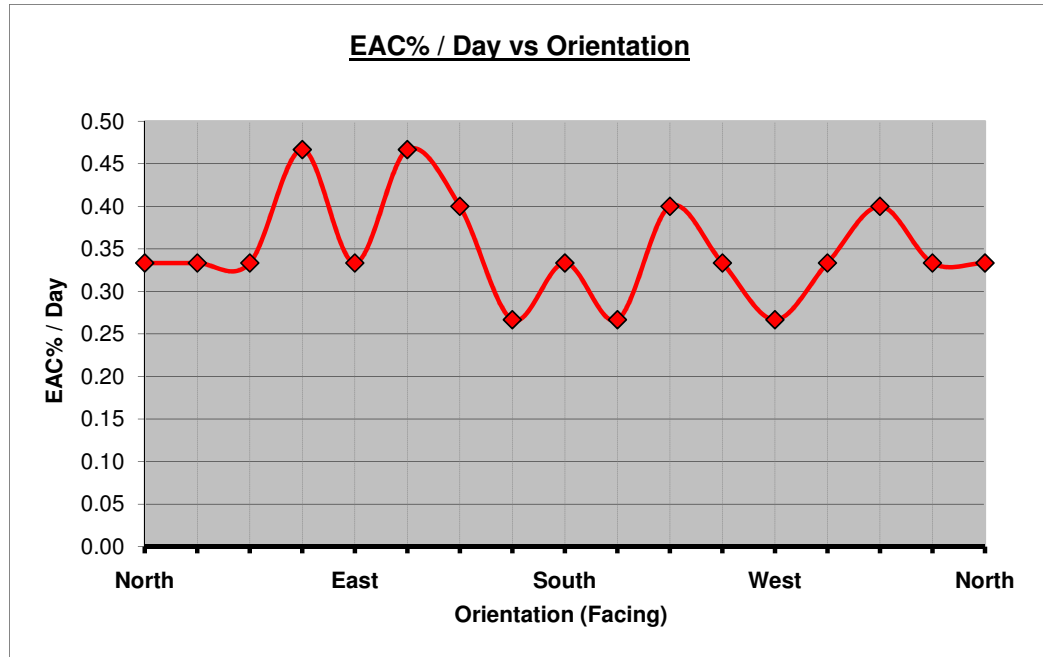
Note: Cells coloured red are inputs.
The rest are either constants or calculated values.
The calculation is based on taking readings at 20mm intervals along the sticky pad.

Gauge Number- North Location 907BRI

Sticky Pad Data

Date On 15/08/2011 Date Off 30/08/2011 Days = 15
Clean = 100

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	95	360	North	0.33
20	95	337		0.33
40	94	314		0.40
60	95	291		0.33
80	96	269	West	0.27
100	95	246		0.33
120	94	223		0.40
140	96	200		0.27
160	95	177	South	0.33
180	96	154		0.27
200	94	131		0.40
220	93	109		0.47
240	95	86	East	0.33
260	93	63		0.47
280	95	40		0.33
300	95	17		0.33
315	95	0	North	0.33



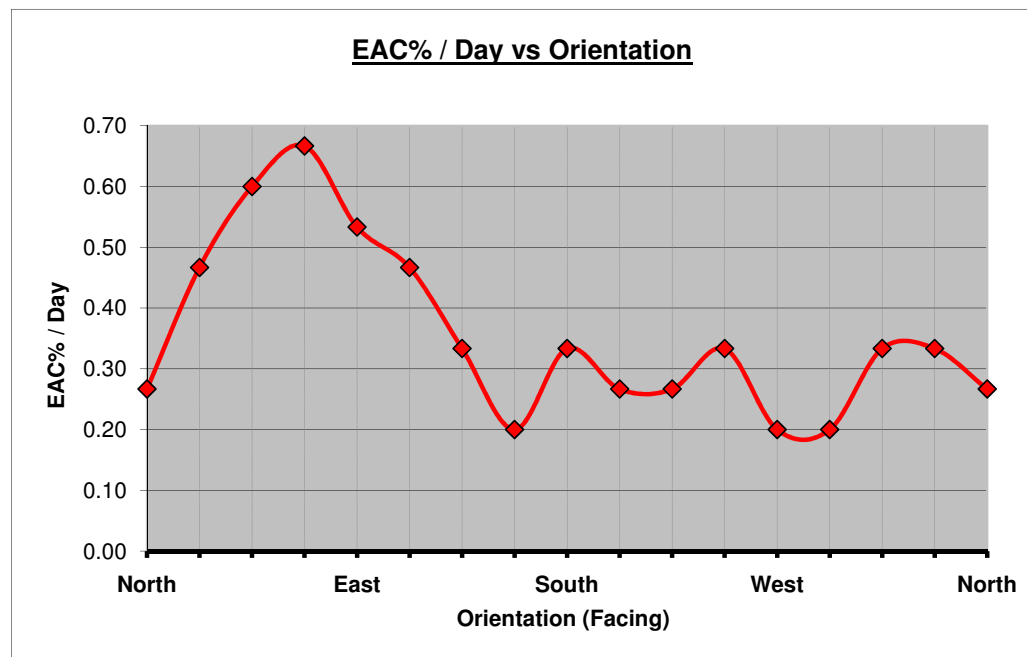
Note: Cells coloured red are inputs.
The rest are either constants or calculated values.
The calculation is based on taking readings at 20mm intervals along the sticky pad.

Gauge Number-North East 2 Location 907BRI

Sticky Pad Data

Date On 15/08/2011 Date Off 30/08/2011 Days = 15
Clean = 100

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	96	360	North	0.27
20	95	337		0.33
40	95	314		0.33
60	97	291		0.20
80	97	269	West	0.20
100	95	246		0.33
120	96	223		0.27
140	96	200		0.27
160	95	177	South	0.33
180	97	154		0.20
200	95	131		0.33
220	93	109		0.47
240	92	86	East	0.53
260	90	63		0.67
280	91	40		0.60
300	93	17		0.47
315	96	0	North	0.27



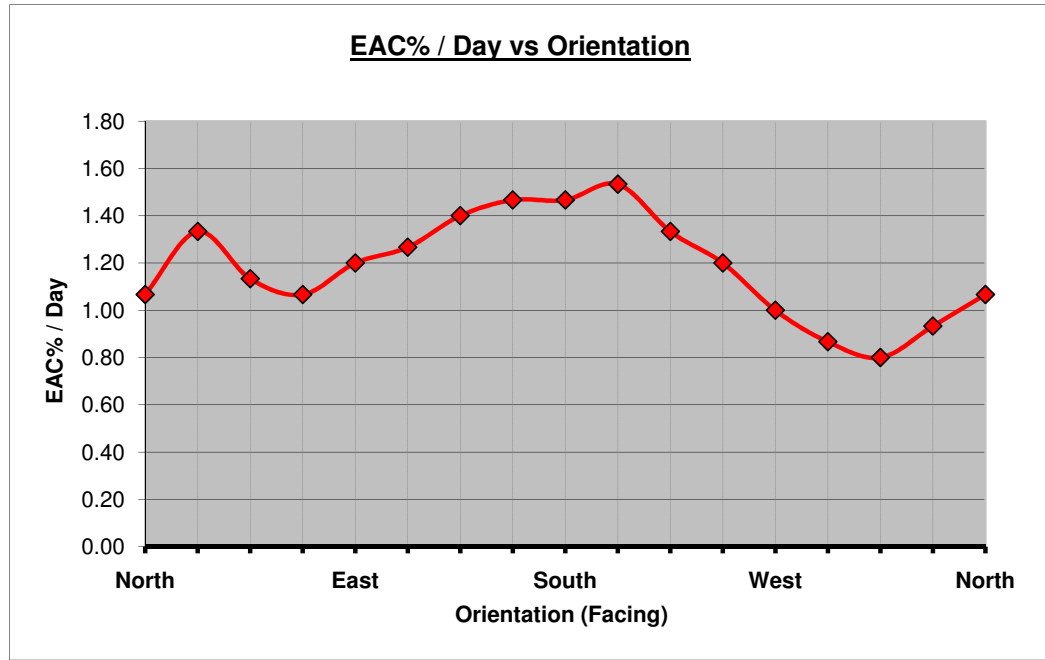
Note: Cells coloured red are inputs.
The rest are either constants or calculated values.
The calculation is based on taking readings at 20mm intervals along the sticky pad.

Gauge Number-South Location 907BRI

Sticky Pad Data

Date On 15/08/2011 Date Off 30/08/2011 Days = 15
Clean = 100

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	84	360	North	1.07
20	86	337		0.93
40	88	314		0.80
60	87	291		0.87
80	85	269	West	1.00
100	82	246		1.20
120	80	223		1.33
140	77	200		1.53
160	78	177	South	1.47
180	78	154		1.47
200	79	131		1.40
220	81	109		1.27
240	82	86	East	1.20
260	84	63		1.07
280	83	40		1.13
300	80	17		1.33
315	84	0	North	1.07



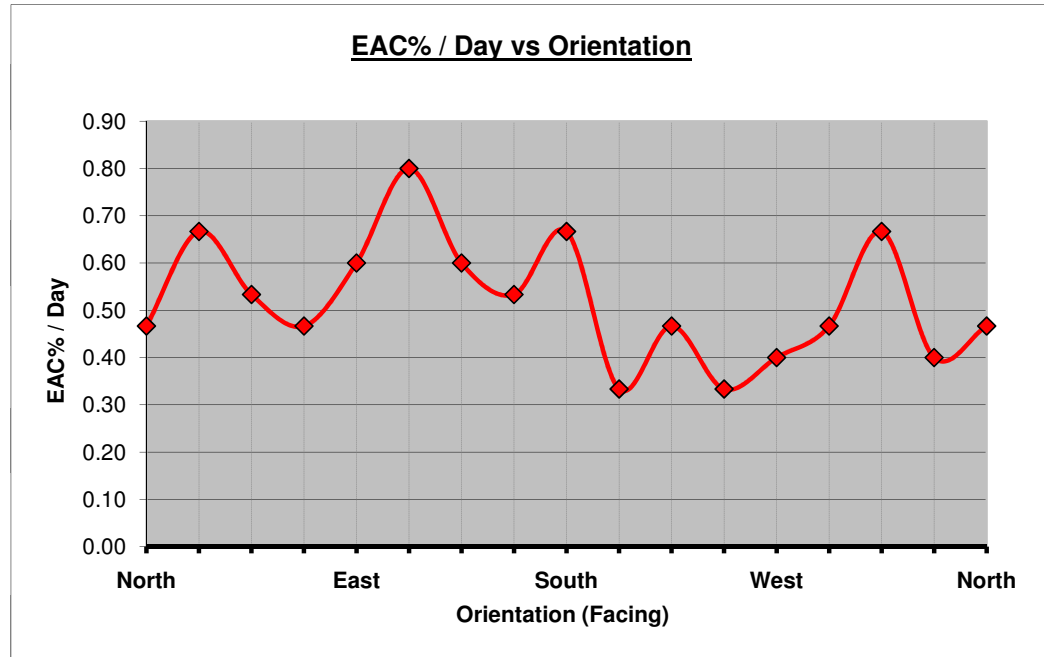
Note: Cells coloured red are inputs.
The rest are either constants or calculated values.
The calculation is based on taking readings at 20mm intervals along the sticky pad.

Gauge Number East Location 907BRI

Sticky Pad Data

Date On 15/08/2011 Date Off 30/08/2011 Days = 15
Clean = 100

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	93	360	North	0.47
20	94	337		0.40
40	90	314		0.67
60	93	291		0.47
80	94	269	West	0.40
100	95	246		0.33
120	93	223		0.47
140	95	200		0.33
160	90	177	South	0.67
180	92	154		0.53
200	91	131		0.60
220	88	109		0.80
240	91	86	East	0.60
260	93	63		0.47
280	92	40		0.53
300	90	17		0.67
315	93	0	North	0.47



Note: Cells coloured red are inputs.
The rest are either constants or calculated values.
The calculation is based on taking readings at 20mm intervals along the sticky pad.

Appendix E
Groundwater Level Data

Date	BH6/06	S3/4	BH4	BH10B/06	BH9	S1/8	BH11*	S2/6	BHB1	W1 (n)	W2	W3 (s)	Riddy 1	Riddy 2	Riddy 3	Riddy 4	V F12	V N3	WS17	P73
1/8/2011	9.775	10.229	Blocked	Covered	10.201	Lost	9.611	Covered	8.930	No Access	No Access	DRY	9.154	9.279	9.511	9.627	Covered	9.533	9.596	9.856
5/8/2011	9.728	10.279	Blocked	Covered	10.196	Lost	9.657	Covered	8.890	No Access	No Access	DRY	9.151	9.283	9.518	9.623	Covered	9.567	9.583	9.873
11/8/2011	9.720	10.340	Blocked	Covered	10.019	Lost	9.663	Covered	8.900	No Access	No Access	DRY	9.159	9.314	9.480	9.619	9.678	9.542	9.566	9.894
12/8/2011	9.750	10.030	Blocked	Covered	10.009	Lost	9.623	Covered	8.900	No Access	No Access	DRY	9.159	9.324	9.510	9.639	9.688	9.492	9.556	9.804
16/8/2011	9.690	No Access	Blocked	Covered	10.019	Lost	9.613	Covered	8.940	No Access	No Access	DRY	9.159	No Access	9.520	9.619	9.668	9.552	9.546	9.884
19/8/2011	9.550	No Access	Blocked	Covered	10.139	Lost	9.663	Covered	8.920	No Access	No Access	DRY	9.179	9.324	9.520	9.624	9.668	9.552	9.546	10.034
22/8/2011	9.400	No Access	Blocked	Covered	10.039	Lost	9.613	Covered	8.820	No Access	No Access	DRY	9.179	9.324	9.520	9.629	9.638	9.542	9.536	9.984
24/8/2011	9.360	10.330	Blocked	Covered	10.039	Lost	9.603	Covered	8.795	No Access	No Access	DRY	9.179	9.344	9.540	9.629	9.608	9.542	9.536	9.934

Appendix F
Surface Water Analysis Reports



Scientific Analysis Laboratories is a limited company registered in England and Wales (No 2514788) whose address is at Hadfield House, Hadfield Street, Manchester M16 9FE

Scientific Analysis Laboratories

Certificate of Analysis

Hadfield House
Hadfield Street
Cornbrook
Manchester
M16 9FE
Tel : 0161 874 2400
Fax : 0161 874 2468

Report Number: 245390-1

Date of Report: 10-Aug-2011

Customer: VertaseFLI Limited
19 Napier Court
Barlborough Links
Barlborough
S43 4PZ

Customer Contact: The Project Management

Customer Job Reference: 907 BRI
Date Job Received at SAL: 29-Jul-2011
Date Analysis Started: 29-Jul-2011
Date Analysis Completed: 10-Aug-2011

The results reported relate to samples received in the laboratory
Opinions and interpretations expressed herein are outside the scope of UKAS accreditation
This report should not be reproduced except in full without the written approval of the laboratory
Tests covered by this certificate were conducted in accordance with SAL SOPs



1549

Report checked
and authorised by :
Amelia McVennon
Project Manager

Issued by :
Amelia McVennon
Project Manager

SAL Reference: 245390											
Customer Reference: 907 BRI											
Water		Analysed as Water									
Vertase Hauxton Suite											
SAL Reference		245390 001	245390 002	245390 003	245390 004	245390 005	245390 006	245390 007			
Customer Sample Reference		P107	P73	WS17	Cam Up	Cam Down	Riddy Up	Riddy Down			
Date Sampled		28-JUL-2011	28-JUL-2011	28-JUL-2011	28-JUL-2011	28-JUL-2011	28-JUL-2011	28-JUL-2011			
Determinand	Method	Test Sample	LOD	Units							
Electrical Conductivity	T7	AR	10	µS/cm	5800	2400	3200	830	800	820	800
pH	T7	AR			7.1	7.3	6.9	7.8	8.2	8.0	8.1

SAL Reference: 245390											
Customer Reference: 907 BRI											
Water		Analysed as Water									
Vertase Hauxton OP/ON Suite											
SAL Reference		245390 001	245390 002	245390 003	245390 004	245390 005	245390 006	245390 007			
Customer Sample Reference		P107	P73	WS17	Cam Up	Cam Down	Riddy Up	Riddy Down			
Date Sampled		28-JUL-2011	28-JUL-2011	28-JUL-2011	28-JUL-2011	28-JUL-2011	28-JUL-2011	28-JUL-2011			
Determinand	Method	Test Sample	LOD	Units							
Dimefox	T16	AR	0.1	µg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethofumesate	T16	AR	0.1	µg/l	11	1.1	0.5	<0.1	<0.1	<0.1	<0.1
Hempa	T16	AR	0.1	µg/l	<0.1	<0.1	2.0	<0.1	<0.1	<0.1	<0.1
Schradan	T16	AR	0.1	µg/l	2.2	0.4	2.9	<0.1	<0.1	<0.1	<0.1
Simazine	T16	AR	0.01	µg/l	6.6	0.12	<0.01	<0.01	<0.01	<0.01	<0.01

SAL Reference: 245390											
Customer Reference: 907 BRI											
Water		Analysed as Water									
Vertase Hauxton Phenoxy Acid Herbs Suite											
SAL Reference		245390 001	245390 002	245390 003	245390 004	245390 005	245390 006	245390 007			
Customer Sample Reference		P107	P73	WS17	Cam Up	Cam Down	Riddy Up	Riddy Down			
Date Sampled		28-JUL-2011	28-JUL-2011	28-JUL-2011	28-JUL-2011	28-JUL-2011	28-JUL-2011	28-JUL-2011			
Determinand	Method	Test Sample	LOD	Units							
Dicamba	T16	AR	0.1	µg/l	0.1	0.4	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorprop	T16	AR	0.1	µg/l	0.6	0.5	0.9	<0.1	<0.1	<0.1	<0.1
Phenoxy Acetic acid herbicide: MCPA	T16	AR	0.1	µg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mecoprop	T16	AR	0.1	µg/l	23	1.0	24	2.9	1.3	1.0	0.4

SAL Reference: 245390											
Customer Reference: 907 BRI											
Water		Analysed as Water									
Vertase Hauxton SVOC Suite											
SAL Reference		245390 001	245390 002	245390 003	245390 004	245390 005	245390 006	245390 007			
Customer Sample Reference		P107	P73	WS17	Cam Up	Cam Down	Riddy Up	Riddy Down			
Date Sampled		28-JUL-2011	28-JUL-2011	28-JUL-2011	28-JUL-2011	28-JUL-2011	28-JUL-2011	28-JUL-2011			
Determinand	Method	Test Sample	LOD	Units							
2,4,6-Trichlorophenol	T16	AR	10	µg/l	⁽⁹⁾ <100	⁽⁹⁾ <100	⁽⁹⁾ <100	<10	<10	<10	<10
2-Methyl-4,6-dinitrophenol	T16	AR	10	µg/l	⁽⁹⁾ <100	⁽⁹⁾ <100	⁽⁹⁾ <100	<10	<10	<10	<10
4-Chloro-2-methylphenol	T16	AR	10	µg/l	530	74	300	<10	<10	<10	<10
Bis (2-chloroethyl) ether	T16	AR	10	µg/l	2100	220	⁽⁹⁾ <100	<10	<10	<10	<10
Phenol	T16	AR	10	µg/l	⁽⁹⁾ <100	⁽⁹⁾ <100	⁽⁹⁾ <100	<10	<10	<10	<10

SAL Reference: 245390
Customer Reference: 907 BRI

Water Analysed as Water
Vertase Hauxton VOC Suite

SAL Reference		245390 001	245390 002	245390 003	245390 004	245390 005	245390 006	245390 007			
Customer Sample Reference		P107	P73	WS17	Cam Up	Cam Down	Riddy Up	Riddy Down			
Date Sampled		28-JUL-2011	28-JUL-2011	28-JUL-2011	28-JUL-2011	28-JUL-2011	28-JUL-2011	28-JUL-2011			
Determinand	Method	Test Sample	LOD	Units							
1,2-Dichlorobenzene	T54	AR	1	µg/l	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	T54	AR	1	µg/l	11	2	<1	<1	<1	<1	<1
Cis-1,2-Dichloroethylene	T54	AR	1	µg/l	350	31	27	<1	<1	<1	<1
Cyclohexanone	T54	AR	10	µg/l	<10	<10	<10	<10	<10	<10	<10
Tetrachloroethene	T54	AR	1	µg/l	<1	<1	2	2	1	2	1
Toluene	T54	AR	1	µg/l	120	<1	<1	<1	<1	<1	<1
Trichloroethene	T54	AR	1	µg/l	<1	2	2	<1	<1	<1	<1
Vinyl chloride	T54	AR	1	µg/l	(175) 600	18	32	<1	<1	<1	<1
Xylene (Total)	T54	AR	1	µg/l	87	<1	<1	<1	<1	<1	<1

Index to symbols used in 245390-1

Value	Description
AR	As Received
9	LOD raised due to dilution of sample
175	Results should be viewed with caution due to being outside of the instrument calibration range
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

Method Index

Value	Description
T7	Probe
T16	GC/MS
T54	GC/MS (Headspace)

Accreditation Summary

Determinand	Method	Test Sample	LOD	Units	Symbol	SAL References
Electrical Conductivity	T7	AR	10	µS/cm	N	001-007
pH	T7	AR			U	001-007
Dimefox	T16	AR	0.1	µg/l	N	001-007
Ethofumesate	T16	AR	0.1	µg/l	N	001-007
Hempa	T16	AR	0.1	µg/l	N	001-007
Schradan	T16	AR	0.1	µg/l	N	001-007
Simazine	T16	AR	0.01	µg/l	N	001-007
Dicamba	T16	AR	0.1	µg/l	N	001-007
Dichlorprop	T16	AR	0.1	µg/l	N	001-007
Phenoxy Acetic acid herbicide: MCPA	T16	AR	0.1	µg/l	N	001-007
Mecoprop	T16	AR	0.1	µg/l	N	001-007
2,4,6-Trichlorophenol	T16	AR	10	µg/l	U	001-007
2-Methyl-4,6-dinitrophenol	T16	AR	10	µg/l	N	001-007
4-Chloro-2-methylphenol	T16	AR	10	µg/l	N	001-007
Bis (2-chloroethyl) ether	T16	AR	10	µg/l	U	001-007
Phenol	T16	AR	10	µg/l	U	001-007
1,2-Dichlorobenzene	T54	AR	1	µg/l	U	001-007
1,2-Dichloroethane	T54	AR	1	µg/l	U	001-007
Cis-1,2-Dichloroethylene	T54	AR	1	µg/l	U	001-007
Cyclohexanone	T54	AR	10	µg/l	N	001-007
Tetrachloroethene	T54	AR	1	µg/l	U	001-007
Toluene	T54	AR	1	µg/l	U	001-007
Trichloroethene	T54	AR	1	µg/l	U	001-007
Vinyl chloride	T54	AR	1	µg/l	U	001-007
Xylene (Total)	T54	AR	1	µg/l	U	001-007



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Scientific Analysis Laboratories

Certificate of Analysis

Hadfield House
Hadfield Street
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M16 9FE
Tel : 0161 874 2400
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Report Number: 245903-1

Date of Report: 10-Aug-2011

Customer: VertaseFLI Limited
19 Napier Court
Barlborough Links
Barlborough
S43 4PZ

Customer Contact: The Project Management

Customer Job Reference: 907BRI
Date Job Received at SAL: 03-Aug-2011
Date Analysis Started: 03-Aug-2011
Date Analysis Completed: 10-Aug-2011

The results reported relate to samples received in the laboratory
Opinions and interpretations expressed herein are outside the scope of UKAS accreditation
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Tests covered by this certificate were conducted in accordance with SAL SOPs



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Report checked
and authorised by :
Amelia McVennon
Project Manager

Issued by :
Amelia McVennon
Project Manager

SAL Reference: 245903											
Customer Reference: 907BRI											
Water		Analysed as Water									
Vertase Hauxton Suite											
SAL Reference		245903 001	245903 002	245903 003	245903 004	245903 005	245903 006	245903 007			
Customer Sample Reference		VN3	BH11	BH9	S3/4	VF12	BHB1	BH6:06			
Date Sampled		01-AUG-2011	01-AUG-2011	01-AUG-2011	02-AUG-2011	02-AUG-2011	02-AUG-2011	02-AUG-2011			
Determinand	Method	Test Sample	LOD	Units							
Electrical Conductivity	T7	AR	10	µS/cm	2200	1400	1800	3300	1200	1900	870
pH	T7	AR			7.2	7.3	7.5	7.2	7.4	7.1	7.2

SAL Reference: 245903											
Customer Reference: 907BRI											
Water		Analysed as Water									
Vertase Hauxton OP/ON Suite											
SAL Reference		245903 001	245903 002	245903 003	245903 004	245903 005	245903 006	245903 007			
Customer Sample Reference		VN3	BH11	BH9	S3/4	VF12	BHB1	BH6:06			
Date Sampled		01-AUG-2011	01-AUG-2011	01-AUG-2011	02-AUG-2011	02-AUG-2011	02-AUG-2011	02-AUG-2011			
Determinand	Method	Test Sample	LOD	Units							
Dimefox	T16	AR	0.1	µg/l	<0.1	<0.1	<0.1	0.6	<0.1	<0.1	<0.1
Ethofumesate	T16	AR	0.1	µg/l	9.7	33	15	2.5	280	850	2.1
Hempa	T16	AR	0.1	µg/l	<0.1	<0.1	3.6	410	190	<0.1	1.0
Schradan	T16	AR	0.1	µg/l	0.9	17	2.2	560	100	620	2.0
Simazine	T16	AR	0.01	µg/l	0.08	0.09	<0.01	0.15	0.42	4.6	0.06

SAL Reference: 245903											
Customer Reference: 907BRI											
Water		Analysed as Water									
Vertase Hauxton Phenoxy Acid Herbs Suite											
SAL Reference		245903 001	245903 002	245903 003	245903 004	245903 005	245903 006	245903 007			
Customer Sample Reference		VN3	BH11	BH9	S3/4	VF12	BHB1	BH6:06			
Date Sampled		01-AUG-2011	01-AUG-2011	01-AUG-2011	02-AUG-2011	02-AUG-2011	02-AUG-2011	02-AUG-2011			
Determinand	Method	Test Sample	LOD	Units							
Dicamba	T16	AR	0.1	µg/l	<0.1	0.1	0.2	0.4	<0.1	1.6	0.3
Dichlorprop	T16	AR	0.1	µg/l	0.2	0.4	0.2	2.7	0.2	2.0	<0.1
Phenoxy Acetic acid herbicide: MCPA	T16	AR	0.1	µg/l	<0.1	<0.1	<0.1	<0.1	<0.1	0.8	<0.1
Mecoprop	T16	AR	0.1	µg/l	25	9.1	3.0	27	26	24	3.6

SAL Reference: 245903											
Customer Reference: 907BRI											
Water		Analysed as Water									
Vertase Hauxton SVOC Suite											
SAL Reference		245903 001	245903 002	245903 003	245903 004	245903 005	245903 006	245903 007			
Customer Sample Reference		VN3	BH11	BH9	S3/4	VF12	BHB1	BH6:06			
Date Sampled		01-AUG-2011	01-AUG-2011	01-AUG-2011	02-AUG-2011	02-AUG-2011	02-AUG-2011	02-AUG-2011			
Determinand	Method	Test Sample	LOD	Units							
2,4,6-Trichlorophenol	T16	AR	10	µg/l	<10	<10	<10	11	<10	<10	<10
2-Methyl-4,6-dinitrophenol	T16	AR	10	µg/l	<10	<10	<10	<10	<10	<10	<10
4-Chloro-2-methylphenol	T16	AR	10	µg/l	<10	<10	10	54	140	600	<10
Bis (2-chloroethyl) ether	T16	AR	10	µg/l	350	40	350	910	50	190	<10
Phenol	T16	AR	10	µg/l	<10	<10	10	<10	<10	<10	<10

SAL Reference: 245903
Customer Reference: 907BRI

Water Analysed as Water
Vertase Hauxton VOC Suite

SAL Reference	245903 001	245903 002	245903 003	245903 004	245903 005	245903 006	245903 007				
Customer Sample Reference	VN3	BH11	BH9	S3/4	VF12	BHB1	BH6:06				
Date Sampled	01-AUG-2011	01-AUG-2011	01-AUG-2011	02-AUG-2011	02-AUG-2011	02-AUG-2011	02-AUG-2011				
Determinand	Method	Test Sample	LOD	Units							
1,2-Dichlorobenzene	T54	AR	1	µg/l	<1	<1	<1	<1	<1	1	<1
1,2-Dichloroethane	T54	AR	1	µg/l	<1	18	<1	<1	8	12	<1
Cis-1,2-Dichloroethylene	T54	AR	1	µg/l	<1	5	1	<1	10	570	3
Cyclohexanone	T54	AR	10	µg/l	<10	<10	<10	<10	<10	<10	<10
Tetrachloroethene	T54	AR	1	µg/l	<1	<1	<1	<1	35	3	<1
Toluene	T54	AR	1	µg/l	<1	<1	<1	55	4	7	<1
Trichloroethene	T54	AR	1	µg/l	<1	<1	<1	<1	19	3	<1
Vinyl chloride	T54	AR	1	µg/l	<1	3	<1	1	6	260	1
Xylene (Total)	T54	AR	1	µg/l	<1	<1	<1	45	6	82	<1

Index to symbols used in 245903-1

Value	Description
AR	As Received
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

Method Index

Value	Description
T7	Probe
T54	GC/MS (Headspace)
T16	GC/MS

Accreditation Summary

Determinand	Method	Test Sample	LOD	Units	Symbol	SAL References
Electrical Conductivity	T7	AR	10	µS/cm	N	001-007
pH	T7	AR			U	001-007
Dimefox	T16	AR	0.1	µg/l	N	001-007
Ethofumesate	T16	AR	0.1	µg/l	N	001-007
Hempa	T16	AR	0.1	µg/l	N	001-007
Schradan	T16	AR	0.1	µg/l	N	001-007
Simazine	T16	AR	0.01	µg/l	N	001-007
Dicamba	T16	AR	0.1	µg/l	N	001-007
Dichlorprop	T16	AR	0.1	µg/l	N	001-007
Phenoxy Acetic acid herbicide: MCPA	T16	AR	0.1	µg/l	N	001-007
Mecoprop	T16	AR	0.1	µg/l	N	001-007
2,4,6-Trichlorophenol	T16	AR	10	µg/l	U	001-007
2-Methyl-4,6-dinitrophenol	T16	AR	10	µg/l	N	001-007
4-Chloro-2-methylphenol	T16	AR	10	µg/l	N	001-007
Bis (2-chloroethyl) ether	T16	AR	10	µg/l	U	001-007
Phenol	T16	AR	10	µg/l	U	001-007
1,2-Dichlorobenzene	T54	AR	1	µg/l	U	001-007
1,2-Dichloroethane	T54	AR	1	µg/l	U	001-007
Cis-1,2-Dichloroethylene	T54	AR	1	µg/l	U	001-007
Cyclohexanone	T54	AR	10	µg/l	N	001-007
Tetrachloroethene	T54	AR	1	µg/l	U	001-007
Toluene	T54	AR	1	µg/l	U	001-007
Trichloroethene	T54	AR	1	µg/l	U	001-007
Vinyl chloride	T54	AR	1	µg/l	U	001-007
Xylene (Total)	T54	AR	1	µg/l	U	001-007



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Scientific Analysis Laboratories is a limited company registered in England and Wales (No 2514788) whose address is at Hadfield House, Hadfield Street, Manchester M16 9FE

Report Number: 249485-1

Date of Report: 12-Sep-2011

Customer: VertaseFLI Limited
19 Napier Court
Barlborough Links
Barlborough
S43 4PZ

Customer Contact: The Project Management

Customer Job Reference: 907 BRI
Customer Purchase Order: 907 BRI
Date Job Received at SAL: 05-Sep-2011
Date Analysis Started: 06-Sep-2011
Date Analysis Completed: 12-Sep-2011

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Tests covered by this certificate were conducted in accordance with SAL SOPs



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Report checked
and authorised by :
Miss Emma Tibbitts
Senior Project Manager

Issued by :
Miss Emma Tibbitts
Senior Project Manager

SAL Reference: 249485 Customer Reference: 907 BRI Water Analysed as Water Vertase Hauxton Suite								
SAL Reference					249485 001	249485 002	249485 003	249485 004
Customer Sample Reference					BH11	WS17	VN3	BH9
Date Sampled					02-SEP-2011	02-SEP-2011	02-SEP-2011	02-SEP-2011
Determinand	Method	Test Sample	LOD	Units				
Electrical Conductivity	T7	AR	10	µS/cm	900	1800	2400	1900
pH	T7	AR			6.8	7.0	7.0	7.2

SAL Reference: 249485 Customer Reference: 907 BRI Water Analysed as Water Vertase Hauxton OP/ON Suite								
SAL Reference					249485 001	249485 002	249485 003	249485 004
Customer Sample Reference					BH11	WS17	VN3	BH9
Date Sampled					02-SEP-2011	02-SEP-2011	02-SEP-2011	02-SEP-2011
Determinand	Method	Test Sample	LOD	Units				
Dimefox	T16	AR	0.1	µg/l	<0.1	<0.1	<0.1	<0.1
Ethofumesate	T16	AR	0.1	µg/l	<0.1	0.9	7.8	0.1
Hempa	T16	AR	0.1	µg/l	3.0	1.3	<0.1	4.0
Schradan	T16	AR	0.1	µg/l	14	1.8		0.8
Simazine	T16	AR	0.01	µg/l	0.33	0.52	<0.01	<0.01

SAL Reference: 249485 Customer Reference: 907 BRI Water Analysed as Water Vertase Hauxton Phenoxy Acid Herbs Suite								
SAL Reference					249485 001	249485 002	249485 003	249485 004
Customer Sample Reference					BH11	WS17	VN3	BH9
Date Sampled					02-SEP-2011	02-SEP-2011	02-SEP-2011	02-SEP-2011
Determinand	Method	Test Sample	LOD	Units				
Dicamba	T16	AR	0.1	µg/l	<0.1	0.4	<0.1	<0.1
Dichlorprop	T16	AR	0.1	µg/l	<0.1	0.5	<0.1	<0.1
Phenoxy Acetic acid herbicide: MCPA	T16	AR	0.1	µg/l	<0.1	<0.1	<0.1	<0.1
Mecoprop	T16	AR	0.1	µg/l	1.9	30	5.8	2.1

SAL Reference: 249485 Customer Reference: 907 BRI Water Analysed as Water Vertase Hauxton VOC Suite								
SAL Reference					249485 001	249485 002	249485 003	249485 004
Customer Sample Reference					BH11	WS17	VN3	BH9
Date Sampled					02-SEP-2011	02-SEP-2011	02-SEP-2011	02-SEP-2011
Determinand	Method	Test Sample	LOD	Units				
Vinyl chloride	T54	AR	1	µg/l	<1	5	<1	2
Cis-1,2-Dichloroethylene	T54	AR	1	µg/l	<1	6	1	4
1,2-Dichloroethane	T54	AR	1	µg/l	<1	<1	<1	<1
Trichloroethene	T54	AR	1	µg/l	<1	<1	<1	<1
Toluene	T54	AR	1	µg/l	<1	<1	<1	<1
Tetrachloroethene	T54	AR	1	µg/l	<1	<1	<1	<1
Xylene (Total)	T54	AR	1	µg/l	<1	<1	<1	<1
1,2-Dichlorobenzene	T54	AR	1	µg/l	<1	<1	<1	<1
Cyclohexanone	T54	AR	10	µg/l	<10	<10	<10	<10

SAL Reference: 249485								
Customer Reference: 907 BRI								
Water			Analysed as Water					
Vertase Hauxton SVOC Suite								
SAL Reference			249485 001	249485 002	249485 003	249485 004		
Customer Sample Reference			BH11	WS17	VN3	BH9		
Date Sampled			02-SEP-2011	02-SEP-2011	02-SEP-2011	02-SEP-2011		
Determinand	Method	Test Sample	LOD	Units				
2,4,6-Trichlorophenol	T16	AR	10	µg/l	<10	<10	<10	<10
2-Methyl-4,6-dinitrophenol	T16	AR	10	µg/l	<10	<10	<10	<10
4-Chloro-2-methylphenol	T16	AR	10	µg/l	<10	56	<10	<10
Bis (2-chloroethyl) ether	T16	AR	10	µg/l	<10	1500	550	340
Phenol	T16	AR	10	µg/l	⁽³⁶⁾ <50	⁽³⁶⁾ <50	⁽³⁶⁾ <50	⁽³⁶⁾ <50

Index to symbols used in 249485-1

Value	Description
AR	As Received
36	LOD Raised due to low Matrix spike recovery
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

Method Index

Value	Description
T7	Probe
T16	GC/MS
T54	GC/MS (Headspace)

Accreditation Summary

Determinand	Method	Test Sample	LOD	Units	Symbol	SAL References
Vinyl chloride	T54	AR	1	µg/l	U	001-004
Cis-1,2-Dichloroethylene	T54	AR	1	µg/l	U	001-004
1,2-Dichloroethane	T54	AR	1	µg/l	U	001-004
Trichloroethene	T54	AR	1	µg/l	U	001-004
Toluene	T54	AR	1	µg/l	U	001-004
Tetrachloroethene	T54	AR	1	µg/l	U	001-004
Xylene (Total)	T54	AR	1	µg/l	U	001-004
1,2-Dichlorobenzene	T54	AR	1	µg/l	U	001-004
Cyclohexanone	T54	AR	10	µg/l	N	001-004
Electrical Conductivity	T7	AR	10	µS/cm	N	001-004
pH	T7	AR			U	001-004
Dimefox	T16	AR	0.1	µg/l	N	001-004
Ethofumesate	T16	AR	0.1	µg/l	N	001-004
Hempa	T16	AR	0.1	µg/l	N	001-004
Schradan	T16	AR	0.1	µg/l	N	001-004
Simazine	T16	AR	0.01	µg/l	N	001-004
Dicamba	T16	AR	0.1	µg/l	N	001-004
Dichlorprop	T16	AR	0.1	µg/l	N	001-004
Phenoxy Acetic acid herbicide: MCPA	T16	AR	0.1	µg/l	N	001-004
Mecoprop	T16	AR	0.1	µg/l	N	001-004
2,4,6-Trichlorophenol	T16	AR	10	µg/l	U	001-004
2-Methyl-4,6-dinitrophenol	T16	AR	10	µg/l	N	001-004
4-Chloro-2-methylphenol	T16	AR	10	µg/l	N	001-004
Bis (2-chloroethyl) ether	T16	AR	10	µg/l	U	001-004
Phenol	T16	AR	10	µg/l	U	001-004



Scientific Analysis Laboratories Ltd

Certificate of Analysis

Hadfield House
Hadfield Street
Cornbrook
Manchester
M16 9FE
Tel : 0161 874 2400
Fax : 0161 874 2468

Scientific Analysis Laboratories is a limited company registered in England and Wales (No 2514788) whose address is at Hadfield House, Hadfield Street, Manchester M16 9FE

Report Number: 249764-1

Date of Report: 13-Sep-2011

Customer: VertaseFLI Limited
19 Napier Court
Barlborough Links
Barlborough
S43 4PZ

Customer Contact: The Project Management

Customer Job Reference: 907 BRI
Customer Purchase Order: 907 BRI
Date Job Received at SAL: 07-Sep-2011
Date Analysis Started: 08-Sep-2011
Date Analysis Completed: 13-Sep-2011

The results reported relate to samples received in the laboratory
Opinions and interpretations expressed herein are outside the scope of UKAS accreditation
This report should not be reproduced except in full without the written approval of the laboratory
Tests covered by this certificate were conducted in accordance with SAL SOPs



1549

Report checked
and authorised by :
Miss Emma Tibbitts
Senior Project Manager

Issued by :
Miss Emma Tibbitts
Senior Project Manager

SAL Reference: 249764 Customer Reference: 907 BRI Water Analysed as Water Vertase Hauxton Suite					
SAL Reference					249764 001
Customer Sample Reference					BH6/06
Date Sampled					05-SEP-2011
Determinand	Method	Test Sample	LOD	Units	
Electrical Conductivity	T7	AR	10	µS/cm	1200
pH	T7	AR			7.2

SAL Reference: 249764 Customer Reference: 907 BRI Water Analysed as Water Vertase Hauxton OP/ON Suite					
SAL Reference					249764 001
Customer Sample Reference					BH6/06
Date Sampled					05-SEP-2011
Determinand	Method	Test Sample	LOD	Units	
Dimefox	T16	AR	0.1	µg/l	<0.1
Ethofumesate	T16	AR	0.1	µg/l	1.0
Hempa	T16	AR	0.1	µg/l	<0.1
Schradan	T16	AR	0.1	µg/l	<0.1
Simazine	T16	AR	0.01	µg/l	0.01

SAL Reference: 249764 Customer Reference: 907 BRI Water Analysed as Water Vertase Hauxton Phenoxy Acid Herbs Suite					
SAL Reference					249764 001
Customer Sample Reference					BH6/06
Date Sampled					05-SEP-2011
Determinand	Method	Test Sample	LOD	Units	
Dicamba	T16	AR	0.1	µg/l	<0.1
Dichlorprop	T16	AR	0.1	µg/l	0.5
Phenoxy Acetic acid herbicide: MCPA	T16	AR	0.1	µg/l	1.9
Mecoprop	T16	AR	0.1	µg/l	0.8

SAL Reference: 249764 Customer Reference: 907 BRI Water Analysed as Water Vertase Hauxton VOC Suite					
SAL Reference					249764 001
Customer Sample Reference					BH6/06
Date Sampled					05-SEP-2011
Determinand	Method	Test Sample	LOD	Units	
1,2-Dichlorobenzene	T54	AR	1	µg/l	<1
1,2-Dichloroethane	T54	AR	1	µg/l	<1
Cis-1,2-Dichloroethylene	T54	AR	1	µg/l	18
Cyclohexanone	T54	AR	10	µg/l	<10
Tetrachloroethene	T54	AR	1	µg/l	300
Toluene	T54	AR	1	µg/l	14
Trichloroethene	T54	AR	1	µg/l	180
Vinyl chloride	T54	AR	1	µg/l	<1
Xylene (Total)	T54	AR	1	µg/l	<1

SAL Reference: 249764 Customer Reference: 907 BRI					
Water Analysed as Water Vertase Hauxton SVOC Suite					
SAL Reference					249764 001
Customer Sample Reference					BH6/06
Date Sampled					05-SEP-2011
Determinand	Method	Test Sample	LOD	Units	
2,4,6-Trichlorophenol	T16	AR	10	µg/l	<10
2-Methyl-4,6-dinitrophenol	T16	AR	10	µg/l	<10
4-Chloro-2-methylphenol	T16	AR	10	µg/l	<10
Bis (2-chloroethyl) ether	T16	AR	10	µg/l	32
Phenol	T16	AR	10	µg/l	⁽³⁶⁾ <30

Index to symbols used in 249764-1

Value	Description
AR	As Received
36	LOD Raised due to low Matrix spike recovery
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

Method Index

Value	Description
T16	GC/MS
T54	GC/MS (Headspace)
T7	Probe

Accreditation Summary

Determinand	Method	Test Sample	LOD	Units	Symbol	SAL References
Electrical Conductivity	T7	AR	10	µS/cm	N	001
pH	T7	AR			U	001
Dimefox	T16	AR	0.1	µg/l	N	001
Ethofumesate	T16	AR	0.1	µg/l	N	001
Hempa	T16	AR	0.1	µg/l	N	001
Schradan	T16	AR	0.1	µg/l	N	001
Simazine	T16	AR	0.01	µg/l	N	001
Dicamba	T16	AR	0.1	µg/l	N	001
Dichlorprop	T16	AR	0.1	µg/l	N	001
Phenoxy Acetic acid herbicide: MCPA	T16	AR	0.1	µg/l	N	001
Mecoprop	T16	AR	0.1	µg/l	N	001
2,4,6-Trichlorophenol	T16	AR	10	µg/l	U	001
2-Methyl-4,6-dinitrophenol	T16	AR	10	µg/l	N	001
4-Chloro-2-methylphenol	T16	AR	10	µg/l	N	001
Bis (2-chloroethyl) ether	T16	AR	10	µg/l	U	001
Phenol	T16	AR	10	µg/l	U	001
1,2-Dichlorobenzene	T54	AR	1	µg/l	U	001
1,2-Dichloroethane	T54	AR	1	µg/l	U	001
Cis-1,2-Dichloroethylene	T54	AR	1	µg/l	U	001
Cyclohexanone	T54	AR	10	µg/l	N	001
Tetrachloroethene	T54	AR	1	µg/l	U	001
Toluene	T54	AR	1	µg/l	U	001
Trichloroethene	T54	AR	1	µg/l	U	001
Vinyl chloride	T54	AR	1	µg/l	U	001
Xylene (Total)	T54	AR	1	µg/l	U	001



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Report Number: 249765-1

Date of Report: 13-Sep-2011

Customer: VertaseFLI Limited
19 Napier Court
Barlborough Links
Barlborough
S43 4PZ

Customer Contact: The Project Management

Customer Job Reference: 907 BRI
Customer Purchase Order: 907 BRI
Date Job Received at SAL: 07-Sep-2011
Date Analysis Started: 08-Sep-2011
Date Analysis Completed: 13-Sep-2011

The results reported relate to samples received in the laboratory
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Report checked
and authorised by :
Miss Emma Tibbitts
Senior Project Manager

Issued by :
Miss Emma Tibbitts
Senior Project Manager

SAL Reference: 249765 Customer Reference: 907 BRI Water Analysed as Water Vertase Hauxton Suite					
SAL Reference					249765 001
Customer Sample Reference					S3/6
Date Sampled					05-SEP-2011
Determinand	Method	Test Sample	LOD	Units	
Electrical Conductivity	T7	AR	10	µS/cm	5900
pH	T7	AR			7.7

SAL Reference: 249765 Customer Reference: 907 BRI Water Analysed as Water Vertase Hauxton OP/ON Suite					
SAL Reference					249765 001
Customer Sample Reference					S3/6
Date Sampled					05-SEP-2011
Determinand	Method	Test Sample	LOD	Units	
Dimefox	T16	AR	0.1	µg/l	<0.1
Ethofumesate	T16	AR	0.1	µg/l	87
Hempa	T16	AR	0.1	µg/l	2400
Schradan	T16	AR	0.1	µg/l	12000
Simazine	T16	AR	0.01	µg/l	0.90

SAL Reference: 249765 Customer Reference: 907 BRI Water Analysed as Water Vertase Hauxton Phenoxy Acid Herbs Suite					
SAL Reference					249765 001
Customer Sample Reference					S3/6
Date Sampled					05-SEP-2011
Determinand	Method	Test Sample	LOD	Units	
Dicamba	T16	AR	0.1	µg/l	42
Dichlorprop	T16	AR	0.1	µg/l	120
Phenoxy Acetic acid herbicide: MCPA	T16	AR	0.1	µg/l	2200
Mecoprop	T16	AR	0.1	µg/l	270

SAL Reference: 249765 Customer Reference: 907 BRI Water Analysed as Water Vertase Hauxton VOC Suite					
SAL Reference					249765 001
Customer Sample Reference					S3/6
Date Sampled					05-SEP-2011
Determinand	Method	Test Sample	LOD	Units	
1,2-Dichlorobenzene	T54	AR	1	µg/l	⁽¹⁹⁾ 220
1,2-Dichloroethane	T54	AR	1	µg/l	⁽¹⁹⁾ 5100
Cis-1,2-Dichloroethylene	T54	AR	1	µg/l	⁽¹⁹⁾ 22000
Cyclohexanone	T54	AR	10	µg/l	^(19,9) <2000
Tetrachloroethene	T54	AR	1	µg/l	⁽¹⁹⁾ 97000
Toluene	T54	AR	1	µg/l	⁽¹⁹⁾ 5100
Trichloroethene	T54	AR	1	µg/l	⁽¹⁹⁾ 77000
Vinyl chloride	T54	AR	1	µg/l	⁽¹⁹⁾ 1500
Xylene (Total)	T54	AR	1	µg/l	^(9,19) <200

SAL Reference: 249765 Customer Reference: 907 BRI					
Water Analysed as Water Vertase Hauxton SVOC Suite					
SAL Reference					249765 001
Customer Sample Reference					S3/6
Date Sampled					05-SEP-2011
Determinand	Method	Test Sample	LOD	Units	
2,4,6-Trichlorophenol	T16	AR	10	µg/l	1300
2-Methyl-4,6-dinitrophenol	T16	AR	10	µg/l	⁽³⁶⁾ <30
4-Chloro-2-methylphenol	T16	AR	10	µg/l	6000
Bis (2-chloroethyl) ether	T16	AR	10	µg/l	79000
Phenol	T16	AR	10	µg/l	⁽³⁶⁾ <30

Index to symbols used in 249765-1

Value	Description
AR	As Received
36	LOD Raised due to low Matrix spike recovery
9	LOD raised due to dilution of sample
19	Due to high levels the analysis was conducted on a diluted sample
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

Method Index

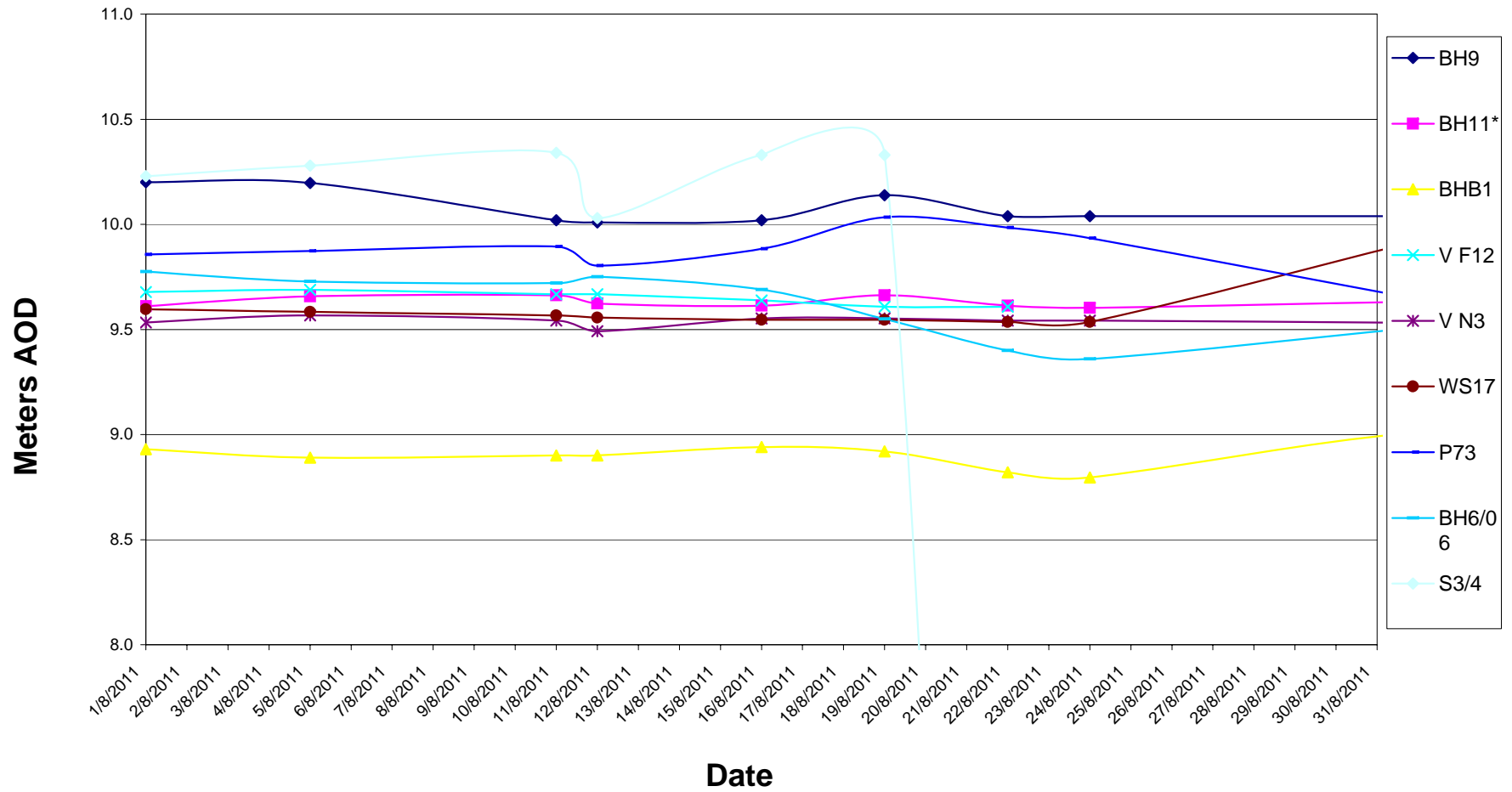
Value	Description
T16	GC/MS
T7	Probe
T54	GC/MS (Headspace)

Accreditation Summary

Determinand	Method	Test Sample	LOD	Units	Symbol	SAL References
Electrical Conductivity	T7	AR	10	µS/cm	N	001
pH	T7	AR			U	001
Dimefox	T16	AR	0.1	µg/l	N	001
Ethofumesate	T16	AR	0.1	µg/l	N	001
Hempa	T16	AR	0.1	µg/l	N	001
Schradan	T16	AR	0.1	µg/l	N	001
Simazine	T16	AR	0.01	µg/l	N	001
Dicamba	T16	AR	0.1	µg/l	N	001
Dichlorprop	T16	AR	0.1	µg/l	N	001
Phenoxy Acetic acid herbicide: MCPA	T16	AR	0.1	µg/l	N	001
Mecoprop	T16	AR	0.1	µg/l	N	001
2,4,6-Trichlorophenol	T16	AR	10	µg/l	U	001
2-Methyl-4,6-dinitrophenol	T16	AR	10	µg/l	N	001
4-Chloro-2-methylphenol	T16	AR	10	µg/l	N	001
Bis (2-chloroethyl) ether	T16	AR	10	µg/l	U	001
Phenol	T16	AR	10	µg/l	U	001
1,2-Dichlorobenzene	T54	AR	1	µg/l	U	001
1,2-Dichloroethane	T54	AR	1	µg/l	U	001
Cis-1,2-Dichloroethylene	T54	AR	1	µg/l	U	001
Cyclohexanone	T54	AR	10	µg/l	N	001
Tetrachloroethene	T54	AR	1	µg/l	U	001
Toluene	T54	AR	1	µg/l	U	001
Trichloroethene	T54	AR	1	µg/l	U	001
Vinyl chloride	T54	AR	1	µg/l	U	001
Xylene (Total)	T54	AR	1	µg/l	U	001

Appendix G
Groundwater Level Graph

Hauxton Groundwater Level Data August 2011



Appendix H
Waste Water Treatment Plant Discharge Analysis

Water Quality Analysis of Effluent Discharge Sample

Sample Taken	Report Date	Report Number	Sample Location	Bromide mg/l	Chloride mg/l	Sulphate Ion mg/l	Suspended Solids (Total) mg/l	Ammoniacal Nitrogen mg/l	Biochemical Oxygen Demand mg/l	pH	Atrazine µg/l	Trietazine µg/l	Simazine µg/l	Total Atrazine, Trietazine and Simazine ug/l	Benazolin µg/l	2,3,6-TBA µg/l	Dicamba µg/l	Hempa µg/l	Schradan µg/l
<i>Consented Levels</i>				50	3000	5000	45	15	30	na	<i>Total of all three</i>			250	50	20	50	274	135
13/1/2011	25/1/2011	224623	WWTW Discharge	<0.2	92.00	140.00	<10	0.38	<3	7.6	<0.01	0.05	<0.01	0.05	<0.1	<0.1	0.1	15	6.5
15/2/2011	23/2/2011	228099	WWTW Discharge	<0.1	170.00	220.00	<10	0.08	<3	9.1	<0.01	<0.01	<0.01	0.00	1.1	<0.1	<0.01	<0.1	<0.1
23/2/2011	9/3/2011	229026	WWTW Discharge	1.70	200.00	250.00	<10	<0.05	<3	8.1	<0.01	<0.01	<0.01	0.00	<0.1	0.20	<0.1	0.40	0.20
2/3/2011	15/3/2011	229789	WWTW Discharge	<0.1	220.00	290.00	<10	<0.05	<3	8.2	<0.01	0.02	<0.01	0.02	<0.1	0.4	<0.1	0.9	0.4
7/3/2011	18/3/2011	230442	WWTW Discharge	NT	NT	NT	NT	NT	NT	8.1	NT	NT	<0.01	NT	NT	NT	0.20	0.6	0.3
23/3/2011	1/4/2011	232143	WWTW Discharge	<0.1	190.00	210.00	<10	<0.05	<3	7.9	<0.01	0.02	<0.01	0.02	<0.1	<0.1	<0.1	0.5	0.2
5/4/2011	13/4/2011	233543	WWTW Discharge	<0.1	190.00	200.00	<10	<0.05	<3	8.0	<0.01	0.03	<0.01	0.03	<0.1	0.8	<0.1	1.1	0.5
20/4/2011	3/5/2011	235339	WWTW Discharge	<0.1	150.00	190.00	<10	<0.05	<3	4.0	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	1.2	0.4
4/5/2011	16/5/2011	236232	WWTW Discharge	<0.2	150.00	180.00	<10	<0.01	<3	8.1	0.03	0.07	0.01	0.11	<0.1	0.8	<0.1	0.8	0.3
12/5/2011	26/5/2011	237211	WWTW Discharge	<0.1	160.00	190.00	15	0.18	<3	8.1	0.03	0.09	<0.01	0.12	<0.1	0.3	<0.1	0.5	<0.1
18/5/2011	31/5/2011	237962	WWTW Discharge	<0.1	130.00	170.00	<10	<0.05	<3	7.9	<0.01	<0.01	<0.01	0.00	<0.1	0.2	0.1	0.4	0.1
2/6/2011	14/6/2011	239421	WWTW Discharge	0.5	130.00	190.00	<10	<0.05	<3	7.8	0.05	0.07	<0.01	0.12	<0.1	3.3	0.3	10	6.7
14/6/2011	22/6/2011	240642	WWTW Discharge	<0.1	140.00	220.00	<10	<0.05	24	8.1	<0.01	<0.01	<0.01	0.00	<0.1	2.5	<0.1	31	30
29/6/2011	7/7/2011	242142	WWTW Discharge	<0.2	160.00	260.00	<10	<0.05	<3	8.2	<0.01	0.01	<0.01	0.01	<0.1	<0.1	<0.1	16	5
11/7/2011	21/7/2011	243434	WWTW Discharge	<0.1	150.00	240.00	<10	<0.05	<3	8.1	<0.01	0.03	<0.01	0.03	<0.1	3	<0.1	12	9.9
25/7/2011	1/8/2011	244979	WWTW Discharge	<0.1	150.00	240.00	<10	0.07	<3	8.2	<0.01	<0.01	<0.01	0.00	<0.1	10	0.4	19	12



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Report Number: Interim to 249090-1

Date of Report: 08-Sep-2011

Customer: VertaseFLI Limited
19 Napier Court
Barlborough Links
Barlborough
S43 4PZ

Customer Contact: Ms. Lucy Buckley

Customer Job Reference: 907 BRI
Customer Purchase Order: 907 BRI
Date Job Received at SAL: 01-Sep-2011
Date Analysis Started: 01-Sep-2011
Date Analysis Completed: 08-Sep-2011

The results reported relate to samples received in the laboratory
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1549

Report checked
and authorised by :
Mr Ross Walker
Customer Services Manager

Issued by :
Mr Ross Walker
Customer Services Manager

SAL Reference: 249090						
Customer Reference: 907 BRI						
Water		Analysed as Water				
Miscellaneous						
SAL Reference			249090 001		249090 002	
Customer Sample Reference			WWTW Discharge		WWTW Primary	
Date Sampled			30-AUG-2011		30-AUG-2011	
Determinand	Method	Test Sample	LOD	Units		
Ammoniacal nitrogen	T4	AR	50	µg/l	<50	<50
Biochemical Oxygen Demand	T7	AR	3000	µg/l	<3000	<3000
pH	T7	AR			8.0	8.3

SAL Reference: 249090						
Customer Reference: 907 BRI						
Water		Analysed as Water				
Suite A						
SAL Reference			249090 001		249090 002	
Customer Sample Reference			WWTW Discharge		WWTW Primary	
Date Sampled			30-AUG-2011		30-AUG-2011	
Determinand	Method	Test Sample	LOD	Units		
Atrazine	T16	AR	0.01	µg/l	0.01	0.09
Trietazine	T16	AR	0.01	µg/l	0.04	3.6

SAL Reference: 249090						
Customer Reference: 907 BRI						
Water		Analysed as Water				
Suite B						
SAL Reference			249090 001		249090 002	
Customer Sample Reference			WWTW Discharge		WWTW Primary	
Date Sampled			30-AUG-2011		30-AUG-2011	
Determinand	Method	Test Sample	LOD	Units		
Benazolin	T16	AR	0.1	µg/l	<0.1	5.0
2,3,6-TCB	T16	AR	0.1	µg/l	0.1	1.1

SAL Reference: 249090						
Customer Reference: 907 BRI						
Water		Analysed as Water				
Suite C						
SAL Reference			249090 001		249090 002	
Customer Sample Reference			WWTW Discharge		WWTW Primary	
Date Sampled			30-AUG-2011		30-AUG-2011	
Determinand	Method	Test Sample	LOD	Units		
Bromide	T253	AR	100	µg/l	300	200
Chloride	T253	AR	200	µg/l	89000	76000
Sulphate ion	T253	AR	100	µg/l	95000	67000
Suspended Solids (Total)	T2	AR	10000	µg/l	<10000	<10000

SAL Reference: 249090 Customer Reference: 907 BRI Water Analysed as Water Suite D						
SAL Reference			249090 001	249090 002		
Customer Sample Reference			WWTW Discharge	WWTW Primary		
Date Sampled			30-AUG-2011	30-AUG-2011		
Determinand	Method	Test Sample	LOD	Units		
Dicamba	T16	AR	0.1	µg/l	<0.1	<0.1
Hempa	T16	AR	0.1	µg/l	23	8.3
Schradan	T16	AR	0.1	µg/l	8.7	8.0
Simazine	T16	AR	0.01	µg/l	0.01	0.12

SAL Reference: 249090 Customer Reference: 907 BRI Water Analysed as Water Suite E						
SAL Reference			249090 001	249090 002		
Customer Sample Reference			WWTW Discharge	WWTW Primary		
Date Sampled			30-AUG-2011	30-AUG-2011		
Determinand	Method	Test Sample	LOD	Units		
TVC at 22 C	T34	AR	10	cfu/ml	44000	24000
TVC at 37 C	T34	AR	10	cfu/ml	2600	9700

Index to symbols used in Interim to 249090-1

Value	Description
AR	As Received
W	Analysis was performed at another SAL laboratory
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

Notes

Interim report issued for results so far.

Method Index

Value	Description
T2	Grav
T253	IC(EID299)
T16	GC/MS
T4	Colorimetry
T7	Probe
T34	Micro

Accreditation Summary

Determinand	Method	Test Sample	LOD	Units	Symbol	SAL References
Ammoniacal nitrogen	T4	AR	50	µg/l	U	001-002
Biochemical Oxygen Demand	T7	AR	3000	µg/l	N	001-002
pH	T7	AR			U	001-002
Atrazine	T16	AR	0.01	µg/l	N	001-002
Trietazine	T16	AR	0.01	µg/l	N	001-002
Benazolin	T16	AR	0.1	µg/l	N	001-002
2,3,6-TCB	T16	AR	0.1	µg/l	N	001-002
Bromide	T253	AR	100	µg/l	WU	001-002
Chloride	T253	AR	200	µg/l	WU	001-002
Sulphate ion	T253	AR	100	µg/l	WU	001-002
Suspended Solids (Total)	T2	AR	10000	µg/l	N	001-002
Dicamba	T16	AR	0.1	µg/l	N	001-002

Determinand	Method	Test Sample	LOD	Units	Symbol	SAL References
Hempa	T16	AR	0.1	µg/l	N	001-002
Schradan	T16	AR	0.1	µg/l	N	001-002
Simazine	T16	AR	0.01	µg/l	N	001-002
TVC at 22 C	T34	AR	10	cfu/ml	WN	001-002
TVC at 37 C	T34	AR	10	cfu/ml	WN	001-002



Appendix I
Soil Characterisation Results Summary

Results Received	Reported to SCDC	Grid square	Contaminant	Concentration (µg/kg)	Likely use/origin
12.04.2010	06.05.2010	K15	VOC/SVOC peaks detected		
12.04.2010	06.05.2010	K16	Series of Aromatic Hydrocarbons circa C ₁₃ -C ₁₆	17,000	Potential herbicide degradation products. The structures are smaller and less complex than contaminants of concern and will therefore degrade more readily than the target contaminants and will be captured by the remediation process.
15.04.2010	06.05.2010 (09.06.2010)	J16	2(1-methylpropyl)-phenol	10,000	Encountered and assessed during site investigation, not a priority contaminant
			2,6-bis(1-methylpropyl)-phenol	100,000	Commonly used in the manufacture of specialty surfactants used as wetting agents for agrochemicals.
			2,6-bis(1,1-dimethylethyl)-4-(1-methylpropyl)-phenol	6,000	Commonly used as an antioxidant and stabiliser, also used in oils used in industrial applications.
			Unidentified branched aromatic alcohol, C ₁₄	240,000	Potential herbicide degradation products. The structures are smaller and less complex than contaminants of concern and will therefore degrade more readily than the target contaminants and will be captured by
			Unidentified branched aromatic alcohol, C ₁₈	290,000	
15.04.2010	06.05.2010	K14	Phenanthrene	4,100	Encountered and assessed during site investigation, concentration below target value
			Fluoranthene	4,800	
			Pyrene	3,900	
			Benzo(b/k)Fluoranthene	2,200	
07.05.2010	24.05.2010	K9	Dodecanoic acid (Lauric acid), isooctyl ester	2,400	Lauric acid - main acid in coconut oil and palm kernel oil, is non-toxic and safe to handle, is used in many soaps, shampoos and body butters.
			Unidentified Aliphatic Hydrocarbon circa C ₃₀	2,300	Potential herbicide degradation products. The structures are smaller and less complex than contaminants of concern and will therefore degrade more readily than the target contaminants and will be captured by the remediation process.
			2,4-Dichloro-o-cresol	9,000	Potential herbicide degradation product
			Bis(2-ethylhexyl) maleate	3,800	Commonly used as an intermediate in hydrogenation or acetylation reactions, possibly used in agrochemicals manufacture
			Cyclo octaatomic sulphur	2,800	S ₈ is the most common form of sulphur in the solid state, widely used in insecticide and fungicide manufacture

07.05.2010	24.05.2010 (09.06.2010)	L8	Dodecanoic acid (Lauric acid), isooctyl ester	7,400	Lauric acid - main acid in coconut oil and palm kernel oil, is non-toxic and safe to handle, is used in many soaps, shampoos and body butters.
			Unidentified aromatic hydrocarbon containing O and Cl circa C ₇	8,400	Potential herbicide degradation products. The structures are smaller and less complex than contaminants of concern and will therefore degrade more readily than the target contaminants and will be captured by the remediation process.
07.05.2010	24.05.2010	L9	Unidentified Aliphatic Hydrocarbon circa C ₃₀	2,300	Potential herbicide degradation products. The structures are smaller and less complex than contaminants of concern and will therefore degrade more readily than the target contaminants and will be captured by the remediation process.
13.05.2010	24.05.2010	H8	No VOC/SVOC peaks detected		
13.05.2010	24.05.2010 (09.06.2010)	H9	1,2-bis(2,4,6-trichlorophenoxy)ethane	6,900	Potential Prochloraz degradation product
			Prochloraz	9,100	Fungicide
			Unidentified aromatic hydrocarbon containing Cl circa C ₈	9,400	Potential herbicide degradation products. The structures are smaller and less complex than contaminants of concern and will therefore degrade more readily than the target contaminants and will be captured by the remediation process.
			Unidentified aromatic amine containing Cl circa C ₁₁	2,100	
13.05.2010	24.05.2010	I7	No SVOC peaks detected		
13.05.2010	24.05.2010 (09.06.2010)	I9	2,4-Dichloro-o-cresol	29,000	Potential herbicide degradation product
			2,3,6-Trichlorotoluene	47,000	
			1-(2-Chloroethoxy)-2-(o-Tolyloxy)ethane	20,000	
			Unidentified aromatic alcohol containing Cl circa C ₇	25,000	Potential herbicide degradation products. The structures are smaller and less complex than contaminants of concern and will therefore degrade more readily than the target contaminants and will be captured by the remediation process.
			Unidentified aromatic hydrocarbon containing O circa C ₁₆₋₁₈	12,000	
13.05.2010	24.05.2010	J7	No VOC/SVOC peaks detected		
20.05.2010	24.05.2010	J8	No VOC/SVOC peaks detected		
26.05.2010		J9	No VOC/SVOC peaks detected		
04.06.2010	16.06.2010 (09.06.2010)	H7	Dichloromethyl phenol	2,100	Same as 2,4-Dichloro-o-cresol (I9)
05.05.2010	16.06.2010 (09.06.2010)	K7	1,2-bis(2,4,6-trichlorophenoxy)ethane	2400.0	As for H9
05.05.2010	16.06.2010	K8	No VOC/SVOC peaks detected		

18.06.2010	29.06.2010	I8	2-methyl phenol	5,500	Encountered and assessed during site investigation, not a priority contaminant
			1,2-dichlorobenzene	3,600	Contaminant of concern, already included in the standard validation suite
17.06.2010	29.06.2010 (09.06.2010)	K10	2,4-Dichloro-o-cresol	550,000	As for I9 and H7
22.06.2010		L10	Cyclo octaatomic sulphur	16,000	As for L8 - Sulphur
20.07.2010	21.07.2010	K10 NAPL	Dichloromethyl phenol	1,800,000	As for 2,4-Dichloro-o-cresol (I9, H7, K10)
			Naphthalene	4,600,000	Encountered and assessed during site investigation, not a priority contaminant
			2-methylnaphthalene	3,900,000	
			1-methylnaphthalene CAS 90-12-0	2,400,000	More toxic than 2-methylnaphthalene, must be assessed separately
			Dinoseb CAS 88-85-7	68,000,000	2-(1-methylpropyl)-4,6-dinitro-phenol - herbicide and insecticide. Yellow crystalline solid.
21.07.2010	22.07.2010	J10	Dichloromethyl phenol	24,000	As for 2,4-Dichloro-o-cresol (I9, H7, K10)
			1-(2-Chloroethoxy)-2-(o-Tolyloxy) ethane CAS 21120-80-9	13,000	Same as I9
			1,2,4-Trichlorobenzene	28,000	Encountered and assessed during site investigation, not a priority contaminant
			Trichlorobenzene	32,000	
			2-Chlorotoluene	60,000	Same as I9
			Trichloro toluene isomer	48,000	
			Trichloro benzenamine isomer	11,000	
2,3-Dichlorotoluene CAS 32768-54-0	290,000	Potential herbicide degradation product			
21.07.2010	22.07.2010	L11	Dichloromethyl phenol	5,000	As for 2,4-Dichloro-o-cresol (I9, H7, K10, J10)
28.07.2010	02.08.2010	H10	2,4-Dichloro-o-cresol CAS 1570-65-6	10,000	As for I9, H7, K10, J10, L11
			Trichloro toluene isomers	58,000	Same as I9, J10
			Dichlorotoluene isomer	52,000	6 possible isomers, but very little data, using surrogate.
			2-Chlorotoluene	39,000	Encountered and assessed during site investigation, not a priority contaminant
			Trichlorobenzene	350,000	
28.07.2010	02.08.2010	I10	2,4-Dichloro-o-cresol CAS 1570-65-6	5,000	As for I9, H7, K10, J10, L11, H10
			Trichloro toluene isomers	24,000	Same as I9, J10, H10
03.08.2010	04.08.2010	L12	2,4-Dichloro-o-cresol CAS 1570-65-6	7,000	As for I9, H7, K10, J10, L11, H10, I10
03.08.2010	04.08.2010	L13	No VOC/SVOC peaks detected		
03.08.2010	04.08.2010	K12	2,4-Dichloro-o-cresol CAS 1570-65-6	7,000	As for I9, H7, K10, J10, L11, H10, I10, L12

03.08.2010	04.08.2010	K13 sand & gravel	Cyclo octaatomic sulphur	68,000	As for L8, L10 - Sulphur
05.08.2010	N/A	K13 chalk	2,4-Dichloro-o-cresol CAS 1570-65-6	650,000	As for I9, H7, K10, J10, L11, H10, I10, L12, K12
			Trichloro toluene isomers	1,140,000	Same as I9, J10, H10, I10
			1-(2-Chloroethoxy)-2-(o-Tolyloxy) ethane CAS 21120-80-9	140,000	Same as I9 and J10
			Dichlorotoluene isomer 2-Chlorotoluene	99,000 12,000	Same as J10, H10 Encountered and assessed during site investigation, not a priority contaminant
05.08.2010	N/A	K11	2,4-Dichloro-o-cresol CAS 1570-65-6	22,000	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13
05.08.2010	N/A	J11	2,4-Dichloro-o-cresol CAS 1570-65-6	220,000	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13
			Trichloro toluene isomers	376,000	Same as I9, J10, H10, I10, K13
			Dinoseb CAS 88-85-7	90,000	Same as K10
			Dichlorotoluene isomer 2-Chlorotoluene	18,000 13,000	Same as H10, K13 Encountered and assessed during site investigation, not a priority contaminant
12.08.2010	17.08.2010	J12	2-chloro Benzenemethanol CAS 17849-38-6	620	Potential agrochemical synthesis ingredient - further investigation is required
			2-Chlorobenzalazine CAS 5328-80-3	5,900	
			2,4-Dichloro-o-cresol CAS 1570-65-6	2,000	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13, J11
			2(1-methylpropyl)-phenol	610	Encountered and assessed during site investigation, not a priority contaminant
12.08.2010	N/A	J13	2,4-Dichloro-o-cresol CAS 1570-65-6	3,400	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13, J11, J12
24.08.2010	25.08.2010	J14	Total Petroleum Hydrocarbons (C5-C12)	43,000	Encountered and assessed during site investigation, not a priority contaminant
			1,3,5-Trimethylbenzene CAS 108-67-8	1,600	Encountered and assessed during site investigation, not a priority contaminant
			1,2,4-Trimethylbenzene CAS 95-63-6	600	
			1,2,3-Trimethylbenzene CAS 526-73-8	700	Isomers encountered and assessed during site investigation, quantitative risk assessment not required
			1-Ethyl-2-Methylbenzene CAS 611-14-3	500	Potential agrochemical synthesis ingredient - further investigation is required
25.08.2010	N/A	I13	1-methylnaphthalene CAS 90-12-0	100	Same as K10NAPL

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			Phenanthrene	200	Encountered and assessed during site investigation, not a priority contaminant
			Fluoranthene	300	
			Pyrene	300	
			Benzo(b/k)Fluoranthene	200	
01.09.2010	N/A	I14	Trichloro methyl benzene (trichloro toluene)	400	Same as I9, J10, H10, I10, K13, J11
01.09.2010	N/A	I15	Dichlorocresol	2600	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13, J11, J12
			Dichlorophenoxybutyric acid	6300	Herbicide encountered and assessed during site investigation, similar to MCPA and Mecoprop which are higher risk substances, therefore not a priority contaminant
01.09.2010	N/A	H14	No VOC/SVOC peaks detected		
01.09.2010	N/A	H15	No VOC/SVOC peaks detected		
03.09.2010	N/A	I11	Dichlorocresol	3,300	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13, J11, J12, I15
			Trichloro methyl benzene (trichloro toluene)	1,000	Same as I9, J10, H10, I10, K13, J11, I14
			Prochloraz CAS 67747-09-5	800	Same as H9
03.09.2010	N/A	I12	1-methylnaphthalene CAS 90-12-0	40,000	Same as K10NAPL, I13
			Dibenzofuran	24,000	Encountered and assessed during site investigation, not a priority contaminant
			Phenanthrene	60,000	
			Fluoranthene	29,000	
Acenaphthene	31,000				
24.09.2010	N/A	J15	Methylpropyl phenol	340	Encountered and assessed during site investigation, not a priority contaminant
24.09.2010	28.09.2010	H13	Oxathiane 4,4-dioxide CAS 107-61-9	220	
	N/A		Trichloro methyl benzene (trichloro toluene)	230	Same as I9, J10, H10, I10, K13, J11, I14, I11
			Dichloromethylphenol	2100	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13, J11, J12, I15, I11
			1-(2-Chloroethoxy)-2-(o-Tolyloxy) ethane CAS 21120-80-9	470	Same as I9, J10, K13
01.10.2010	N/A	H11	No VOC/SVOC peaks detected		
01.10.2010	05.10.2010	H12	Indane CAS 496-11-7	3700000	2-ring hydrocarbon
	N/A		Ethyltoluene (ethyl methyl benzene) isomer	4500000	As J14
			Bis methylpropyl phenol isomer	980000	As J16
			1,3,5-Trimethylbenzene	3900000	Encountered and assessed during site

			1,2,4-Trimethylbenzene	10000000	investigation, not a priority contaminant
			1,2,3-Trimethylbenzene	3100000	
22.10.2010 (216017)	25.10.2010	G12	Nicotine	6400	Natural insecticide
	N/A		Dichloromethyl phenol	2900	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13, J11, J12, I15, I11, H13
			Methylpropyl phenol	9400	Encountered and assessed during site investigation, not a priority contaminant
			Schradan	1200	Contaminant of concern, already included in the standard validation suite
22.10.2010 (216017)	N/A	G13	1-methylnaphthalene CAS 90-12-0	170	Same as K10NAPL, I13, I12
			Isophorone CAS 78-59-1	530	Encountered and assessed during site investigation, not a priority contaminant
			Naphthalene	690	
			2-methylnaphthalene	270	
			Phenanthrene	410	
			Fluoranthene	380	
			Pyrene	310	
22.10.2010 (216017)	N/A	G14	No VOC/SVOC peaks detected		
29.10.2010 (216821)	N/A	H17	No VOC/SVOC peaks detected		
29.10.2010 (216821)	N/A	G17	No VOC/SVOC peaks detected		
01.11.2010 (216817)	30.11.2010	G10	Dibromochloromethane CAS 124-48-1	300	Risk Assessment
	N/A		Dichloromethyl phenol	1300	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13, J11, J12, I15, I11, H13, G12
			Isophorone	7100	Encountered and assessed during site investigation, not a priority contaminant
			Benzyl Chloride (1-chloro-2-methylbenzene CAS 95-49-8)	200	
			Methylpropyl phenol	7100	
	3,3,5-trimethyl cyclohexanone	700			
01.11.2010 (216817)	N/A	G11	Dichloromethyl phenol	2300	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13, J11, J12, I15, I11, H13, G12, G10
			Trichloro methyl benzene (trichloro toluene)	2400	Same as I9, J10, H10, I10, K13, J11, I14, I11, H13
			1-Methyl naphthalene	760	Same as K10NAPL, I13, I12, G13
			2-methyl phenol	800	Encountered and assessed during site investigation, not a priority contaminant
			Methylpropyl phenol	22000	

			2-Methylnaphthalene	1500	
			2,4,5-Trichlorophenol	360	
			Chloroform	500	
			1,2-dibromoethane	700	
			EthylBenzene	1800	
			1,4-Dichlorobenzene	700	
			1,2,3-Trichlorobenzene	2000	
01.11.2010 (216817)	30.11.2010	G15	Ethyl methyl phenol	18000	Risk Assessment
	N/A		Dimethyl naphthalene	59000	Risk Assessment
			Dichloromethyl phenol	2400	As for I9, H7, K10, J10, L11, H10, I10, L12, K12, K13, J11, J12, I15, I11, H13, G12, G10, G11
			1-Methyl naphthalene	26000	Same as K10NAPL, I13, I12, G13
			1-ethyl-3-methyl benzene (ethyl toluene)	600	As J14, H12
			Ethyltoluene	300	
			Isophorone	37000	Encountered and assessed during site investigation, not a priority contaminant
			Naphthalene	43000	
			Methylpropyl phenol	30000	
			2-Methylnaphthalene	21000	
			Phenanthrene	110000	
			Fluoranthene	69000	
	1,3,5-Trimethylbenzene		900		
1,2,4-Trimethylbenzene	1600				
1,2,3-Trimethylbenzene	400				
08.11.2010 (217789)	N/A	M7	No VOC/SVOC peaks detected		
08.11.2010 (217789)	N/A	M8	2-methyl phenol	11,000	Encountered and assessed during site investigation, not a priority contaminant
08.11.2010 (217793)	N/A	M6	No VOC/SVOC peaks detected		
08.11.2010 (217793)	N/A	N6	No VOC/SVOC peaks detected		
08.11.2010 (217795)	N/A	L5	No VOC/SVOC peaks detected		
08.11.2010 (217795)	N/A	M4	No VOC/SVOC peaks detected		
08.11.2010 (217797)	N/A	M5	No VOC/SVOC peaks detected		
08.11.2010 (217797)	N/A	N4	No VOC/SVOC peaks detected		
08.11.2010 (217797)	N/A	N5	No VOC/SVOC peaks detected		
08.11.2010 (217800)	N/A	M9	No VOC/SVOC peaks detected		

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18.11.2010 (218834)	N/A	I6	No VOC/SVOC peaks detected			
23.11.2010 (219458)	N/A	L4	No VOC/SVOC peaks detected			
23.11.2010 (219456)	N/A	N3	No VOC/SVOC peaks detected			
20.01.2011 (224432)	N/A	F11	No VOC/SVOC peaks detected			
20.01.2011 (224432)	N/A	F12	No VOC/SVOC peaks detected			
20.01.2011 (224432)	24.01.2011	F13	Total Petroleum Hydrocarbons (C8-C14)	16000	Controlled Waters risk assessment required, Human Health risk assessment previously actioned	
20.01.2011 (224432)	24.01.2011	E12	Total Petroleum Hydrocarbons (C8-C14)	28000	Controlled Waters risk assessment required, Human Health risk assessment previously actioned	
			1-Ethyl-2-Methylbenzene (o-ethyl toluene) CAS 611-14-3	300	As J14, H12, G15	
	N/A		1,2,4-Trimethylbenzene	700	Encountered and assessed during site investigation, not a priority contaminant	
20.01.2011 (224432)	24.01.2011	E13	DDD	4100	Pesticide Risk Assessment Required.	
	N/A		m/p ethyl toluene	1200	Encountered and assessed during site investigation, not a priority contaminants	
			m-ethyl toluene:1-ethyl-3-methylbenzene, CAS 620-14-4			
			p-ethyl toluene: 1-ethyl-4-methylbenzene, CAS 622-96-8			
	24.01.2011		N/A	Total Petroleum Hydrocarbons (C8-C13)	73000	Controlled Waters risk assessment required, Human Health risk assessment previously actioned
				2,6-bis(1-methylpropyl)-phenol	5000	As J16, H12
				DDT	3200	Encountered and assessed during site investigation, not a priority contaminant
				4-(1-methylpropyl)phenol	2700	
				2(1-methylpropyl)-phenol	12000	
				1,2,3-trimethylbenzene	600	
1,3,5-trimethylbenzene		1700				
1,2,4-trimethylbenzene	3000					
p-Isopropyltoluene	400					
24.01.2011 (224621)	25.01.2011	F15A	No VOC/SVOC peaks detected			
24.01.2011 (224621)	25.01.2011	F15B	No VOC/SVOC peaks detected			

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09.02.2011 (226719)	10.02.2011	H6	No VOC/SVOC peaks detected		
09.02.2011 (226719)	10.02.2011	J5	No VOC/SVOC peaks detected		
09.02.2011 (226719)	10.02.2011	J6	No VOC/SVOC peaks detected		
17.03.2011 (230436)	21.03.2011	K5	Bis(2-ethylhexyl) maleate CAS 142-16-5	1,800	As L8
21.03.2011 (230436)	22.03.2011	K6	2,3-Dichlorotoluene CAS 32768-54-0	300	As J10, J11, H10, K13
			Bis(2-ethylhexyl) maleate CAS 142-16-5	2,000	As L8, K5
			Squalene CAS 7683-64-9	2,000	Natural organic compound found in the human body. Used in cosmetics, vaccines and steroid synthesis. Risk assessment not required.
			Glycerol tricaprilate CAS 538-28-8	4,700	Cosmetic ingredient. Risk Assessment not required.
28.03.2011 (231689)	29.03.2011	M10	No VOC/SVOC peaks detected		
30.03.2011 (232134)	01.04.2011	L14	No VOC/SVOC peaks detected		
31.03.2011 (232138)	24.05.2011	TB100 (J13, K12, K13)	Dimethyl nitroaniline isomer	5,400	Risk Assesment Required
			Chlorazine, CAS 580-48-3	2,400	listed as antipsychotic drug, very similar in structure to the herbicide simazine. Risk Assessment required.
	N/A		Dinoseb	57,000	As J11, K10, Already actioned
	DDD		9,300	As E13, Already actioned.	
	Trietazine		8,600	Encountered and assessed during site investigation, not a priority contaminant	
13.06.2011 (239403)	N/A	G16	No VOC/SVOC peaks detected		
13.06.2011 (239403)	N/A	H16	No VOC/SVOC peaks detected		
13.06.2011 (239578)	N/A	L6	No VOC/SVOC peaks detected		
13.06.2011 (239578)	N/A	L7	No VOC/SVOC peaks detected		