



Environmental Monitoring Report

Reporting Period
30/08/2010-03/10/2010
Revision1.



Former Bayer Crop Science Site
Hauxton
Cambridgeshire

14th October 2010

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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 30th of August 2010, until the 3rd of October 2010.

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 25. Week Commencing 30th August 2010

During the first half of the week the wind direction was towards the villages of Hauxton and Harston, no new excavation of contaminated ground was undertaken until the weather conditions were more favourable to prevent odours migrating to wards neighbouring residents. Crushing of the broken concrete stockpile commenced and was constantly monitored for dust generation, and stockpiles were wetted down when required. The treatment of materials using covered forced ventilation and vapour extraction methods continues. Excavation of grid squares H14 and H15 commenced on 2nd September with treatment beds being created adjacent to the excavation area, recently excavated materials were covered as quickly as possible to prevent odour generation and migration.

Week 26. Week Commencing 6th September 2010

The main excavation continued through grid square H14 and H15, excavated soils were formed into treatment beds and covered to prevent odour migration. Turning and processing of the treatment beds continued with treatment beds being selected for processing depending on their odour generation potential and predominant wind direction. Crushing of the broken concrete stockpile continued and was constantly monitored for dust generation, and stockpiles were wetted down when required. Excavation of contaminated soils was halted on 9th of September until the following week as the predominant wind direction was towards the Village of Hauxton.

Week 27. Week Commencing 13th September 2010

Excavation activity was not undertaken this week, due to the predominant wind direction being towards the residential areas to the south east and south of the site, works mainly consisted of breaking out concrete slab, crushing broken concrete and turning odourless treatment beds. Trial pitting was undertaken in grid squares H13 and H12 to ascertain the types and concentrations of contaminants in the next phase of excavation.

Week 28. Week Commencing 20th September 2010

Excavation recommenced in grid square H10, H11 and H12, crushing of broken concrete continued on site with the appropriate mitigation measures being applied to prevent dust

generation. Breaking out of concrete slab proceeded through parts of grid squares G and H, 11 to 13, this material was added to the stockpile of broken concrete being crushed and screened on site.

Week 29. Week Commencing 27th September 2010

The breaking out of concrete slab continued through parts of grid squares G and H, 11 to 13. Due to the predominant wind direction being towards residential areas to the south east of the site, excavation of contaminated ground was not undertaken until the 30th of September in grid square H11 through to H14, when the predominant wind direction was to the North. The crushing of the broken concrete stockpile was complete on the 1st October. The turning and processing of treatment beds was halted on the 29th September due to a heavy rain event.

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. Initially two mobile telescopic misting fans were used on site and a full boundary misting system was also erected to supplement the mobile units, along with the addition of two further mobile units to focus specifically on the excavation. The odour controlling solutions used in the misting and telescopic fan systems vary in fragrance from lemon, to melon, to pine, to bubblegum.

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 variety of odour control fragrances 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. During the reported period VOC's, were detected by the PID (Limit of detection of 0.1ppm) on the following occasion:

- 10/09/2010 (09:51) At the northeast monitoring location a maximum intermittent PID reading of 0.6ppm was recorded, the odour was described as a weak concrete and phenol odour. The crushing and turning activities were monitored closely to ensure the odours and PID readings did not intensify or migrate further.
- 21/09/2010 (17:26) Around the northeast monitoring location a maximum intermittent PID reading of 4.0ppm was recorded, the odour was described as a faint phenol, TCE and PCE odour. A mobile fogger unit was used to suppress the odours being generated by the tuning of treatment bed 103, this process was constantly monitored to ensure odour generation did not increase.

All PID reading above 1ppm recorded beyond the site boundary are reported to the Environment Agency immediately, along with details of the additional mitigation methods being implemented to reduce the migration of VOC's from the site.

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. During the monitoring period a sampling error occurred on the northeast monitoring media causing a data loss for this location.

The results for the long term passive VOC monitoring carried out between 03/09/2010 and 01/09/2010 are presented in appendix C. The analysis indicates that the majority of the VOC's detected are around the baseline, except for Tetrachloroethylene and Toluene which continue to be 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 occasion data may be 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 149.83 $\mu\text{g}/\text{m}^3$, the average PM10 dust reading around the site is 80.96 $\mu\text{g}/\text{m}^3$. 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 20/08/2010 to 03/09/2010 (6 locations monitored) recorded a maximum dust deposition rate was 1.57 %EAC at the northwest 1 monitoring location. All other locations had a maximum dust deposition rate of 1.50 %EAC, or less.

Dust monitoring undertaken from the 03/09/2010 to 17/08/2010 (6 locations monitored) recorded a maximum dust deposition rate of 1.50% EAC at the northeast 2 monitoring location. All other locations had a maximum dust deposition rate of 1.43%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 has been on site constantly to allow any maintenance or plant delivery 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 66.60dB. 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 has been very little change in level and flow 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 23rd September 2010 are presented in Appendix F.

The surface water analysis (23rd September 2010) shows traces of Tetrachloroethylene (<2 µg/l) in both upstream and downstream Riddy Brook and River Cam samples. Traces of Cis1,2-Dichloroethylene (<3 µg/l) and Trichloroethylene (<3 µg/l) were detected in the downstream samples of the Riddy Brook. These trace levels of have been recorded in the baseline data collected prior to the commencement of the remediation project and are not related .to a specific 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_31E, in appendix A. The groundwater levels are presented in Appendix E.

Groundwater contour plots are drawn up on a weekly basis to interpret the potential movement of the water beneath the site. Contour plots D907_104, D907_105, D907_106, D907_107 and D907_108 (Appendix G) illustrate the weekly groundwater levels for the reported period.

The five contour plots constructed (Appendix G) illustrate that there have been very few subtle changes in groundwater levels during the monitoring period.

There has been no recharge of groundwater in the central and northern part of the site where the main excavations have taken place, the base of excavations on site are approximately at 10.00mAOD and remain free of groundwater. There has not been any change to the pumping regime in this part of the site during the monitoring period.

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 23rd of September 2010 are presented in Appendix F.

The contaminant concentrations present in the samples taken on the 23rd of September are very similar to the baseline data collected during the summer of 2008, illustrating that there has been very little change to the groundwater's condition since 2008.

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 03/10/2010, forty eight 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. Twenty eight characterisation samples analysed contained a total of seventeen 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

Buildings to Remain



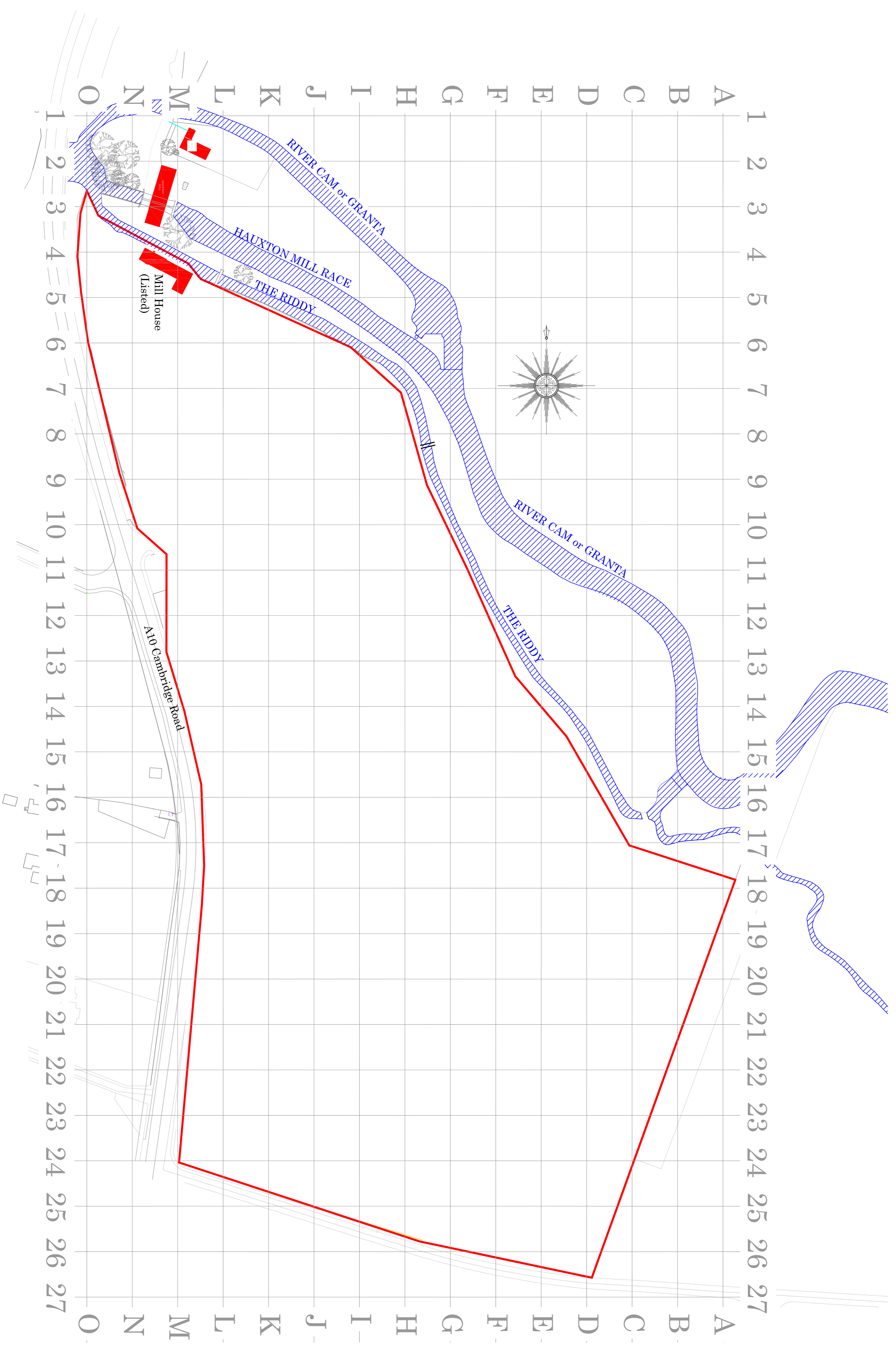
Water Course



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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Site Address:
Bayer Site
Hauxton
Cambridge






Client: Harrow Estates

Title: Blank Site Plan with Grid

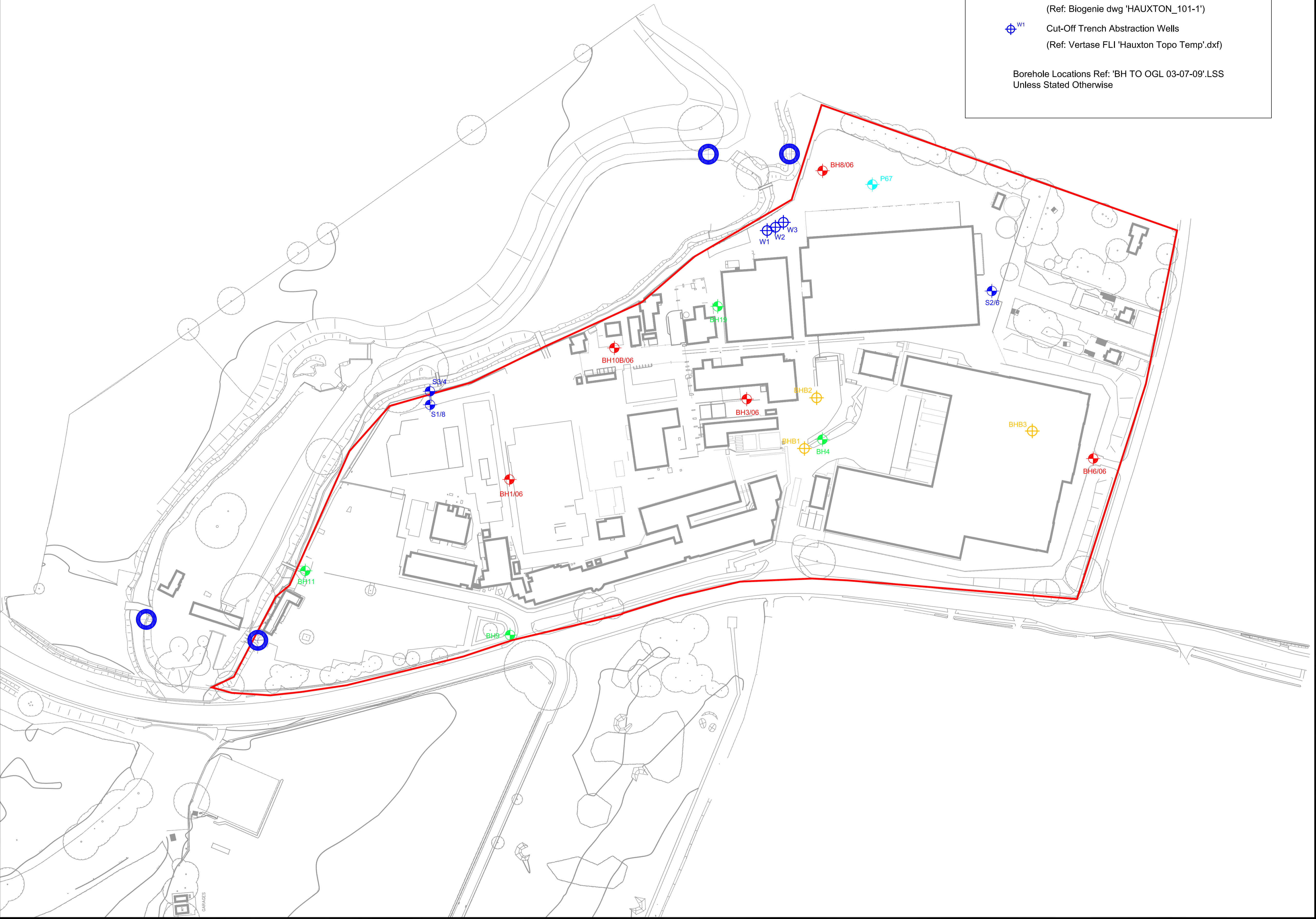
Drawn: JWH
Checked: MA
Approved: MA

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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- Hertford Office: Tel: 01992 535757 Fax: 01992 535858
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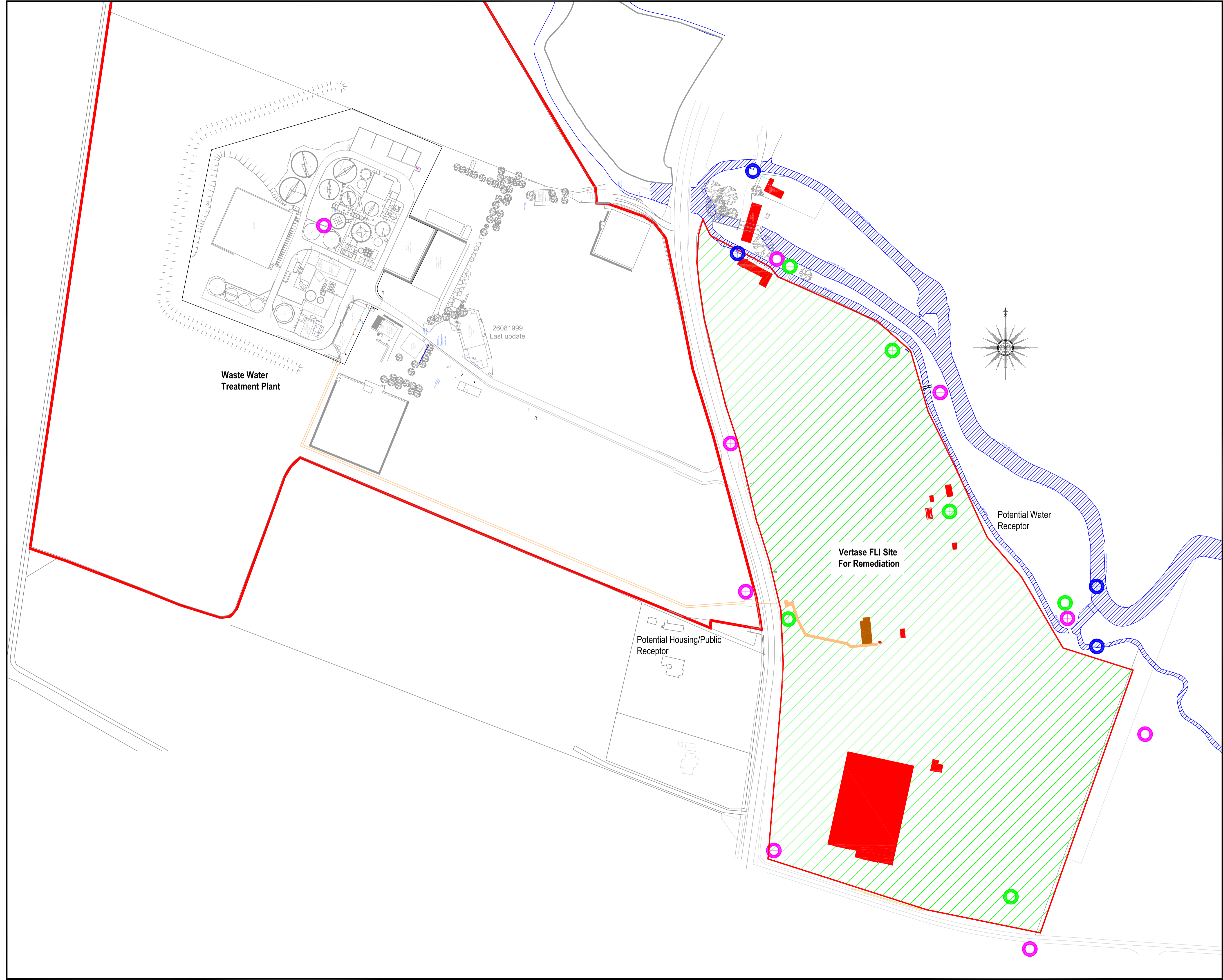
Site Address: Bayer Site Hauxton Cambridge	Rev: E
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Title: Retained Boreholes for Monitoring & Reference

Client: Harrow Estates

Drawn: JWH	Checked: MA	Approved: MA
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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

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



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 - Hertford Office: Tel: 01992 535757
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 - Manchester Office: Tel: 01614 372708
Fax: 01614 376300
- email: info@vertasefli.co.uk
www.vertasefli.com

Site Address: Bayer Site, Hauxton, Cambridge

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 4470
CUSTOMER	Vertase FLI Ltd
GRADKO LAB REFERENCE	GMSE 1864-1875
DATE SAMPLES RECEIVED	07.10.10
DESPATCH REF.NUMBER	SOR004605
JOB NUMBER	907BR1/5302
BOOKING IN REF.	D 5233

**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 04131**
Exposure Time(mins)	39056
Sample ID	North East

**Unicarb tube labelled as Tenax and analysed on Tenax Method
Compounds were not detected**

Tube Number	GRA 01118
Exposure Time(mins)	39032
Sample ID	East

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Tetrachloroethylene	706.74	9.05
Toluene	171.21	2.19
Benzene, 1,2,3-trichloro-4-methyl-	60.41	0.77
m/p-Xylene	42.42	0.54
Trichloroethylene	30.20	0.39
Bis(2-chloroethyl) ether	28.80	0.37
Benzene, 1,2,4-trichloro-3-methyl-	27.94	0.36
Benzene, 1,4-dichloro-2-methyl-	23.74	0.30
Benzene, 1,2-dichloro-	21.51	0.28
o-Xylene	18.28	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

Tube Number GRA 05103
Exposure Time(mins) 39030
Sample ID South East

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Tetrachloroethylene	348.00	4.46
Toluene	100.66	1.29
Benzene, 1,2,3-trichloro-4-methyl-	33.87	0.43
m/p-Xylene	25.85	0.33
Trichloroethylene	20.42	0.26
Benzene	17.32	0.22
Benzene, 1,2,4-trichloro-3-methyl-	17.20	0.22
Benzene, 1,4-dichloro-2-methyl-	16.01	0.21
Bis(2-chloroethyl) ether	15.90	0.20
Benzene, 1,2-dichloro-	13.47	0.17

Tube Number GRA 03710
Exposure Time(mins) 39018
Sample ID South

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Tetrachloroethylene	101.09	1.30
Toluene	44.10	0.57
Nonadecane	26.74	0.34
Benzene	23.38	0.30
Heptadecane	23.22	0.30
Octadecane	19.44	0.25
m/p-Xylene	16.72	0.21
Phenol	15.65	0.20
Hexadecane	14.65	0.19
Benzene, 1,2,3-trichloro-4-methyl-	12.62	0.16

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

Tube Number GRA 06231
Exposure Time(mins) 39015
Sample ID South West

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Tetrachloroethylene	96.10	1.23
Toluene	52.66	0.67
Benzene	18.71	0.24
Cyclohexane, isothiocyanato-	16.34	0.21
m/p-Xylene	14.86	0.19
o-Xylene	13.61	0.17
Benzene, 1,2,3-trichloro-4-methyl-	13.42	0.17
Phenol	9.05	0.12
Cyclohexane, isocyanato-	8.61	0.11
1,4-Methanoazulene, decahydro-4,8,8-trimethyl-9-methylene-, [1S-(1.alpha.,3a.beta.,4.alpha.,8a.beta.)]-	7.69	0.10

Tube Number GRA 04264
Exposure Time(mins) 39015
Sample ID West

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Tetrachloroethylene	95.32	1.22
Toluene	61.23	0.78
o-Xylene	25.03	0.32
Benzene	22.85	0.29
m/p-Xylene	22.84	0.29
Pentane, 3-methyl-	20.95	0.27
Pentane, 2-methyl-	16.21	0.21
Undecane	12.93	0.17
Phenol	12.54	0.16
Hexane	12.36	0.16

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

Tube Number GRA 02342
Exposure Time(mins) 39010
Sample ID North West

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Tetrachloroethylene	947.25	12.14
Toluene	251.42	3.22
Trichloroethylene	214.76	2.75
m/p-Xylene	166.07	2.13
Benzene, 1,2,3-trichloro-4-methyl-	69.59	0.89
Naphthalene, 2-methyl-	49.50	0.63
o-Xylene	47.79	0.61
Naphthalene	32.25	0.41
Ethylbenzene	31.61	0.41
Benzene, 1-chloro-2-methyl-	30.96	0.40

Tube Number GRA 06113
Exposure Time(mins) 39030
Sample ID North

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Tetrachloroethylene	258.83	3.32
Toluene	104.13	1.33
Naphthalene	60.09	0.77
m/p-Xylene	54.96	0.70
Trichloroethylene	49.77	0.64
Benzene	21.43	0.27
o-Xylene	18.89	0.24
Benzene, 1,2,3-trichloro-4-methyl-	15.97	0.20
Naphthalene, 2-methyl-	15.38	0.20
Bis(2-chloroethyl) ether	13.31	0.17

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L. Gates, Laboratory Supervisor

LABORATORY ANALYSIS REPORT

Tube Number GRA 03068
Exposure Time(mins) 39030
Sample ID WWTW

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Benzene	26.50	0.34
Tetrachloroethylene	25.25	0.32
Toluene	13.39	0.17
Phenol	11.82	0.15
o-Xylene	7.06	0.09
Trichloroethylene	6.47	0.08
m/p-Xylene	6.31	0.08
Benzonitrile	4.26	0.05
Octane	4.17	0.05
Undecane	3.32	0.04

Tube Number GRA 06221
Exposure Time(mins) 38975
Sample ID Church Road

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Naphthalene	284.41	3.65
Tetrachloroethylene	41.62	0.53
Toluene	27.53	0.35
Benzene	24.40	0.31
Naphthalene, 2-methyl-	23.02	0.30
Acenaphthene	16.47	0.21
2-Benzo[b]tiophene	15.55	0.20
m/p-Xylene	14.38	0.18
Phenol	11.04	0.14
Phenanthrene	10.95	0.14

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 02268
Exposure Time(mins) 38957
Sample ID Queen's Close

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Toluene	21.00	0.27
Benzene	15.50	0.20
m/p-Xylene	14.56	0.19
o-Xylene	11.86	0.15
Phenol	11.46	0.15
Tetrachloroethylene	7.83	0.10
Benzene, 1,2,4-trimethyl-	5.24	0.07
Ethylbenzene	4.75	0.06
Undecane	4.34	0.06
Hexadecane	3.98	0.05

** Tube number GRA 04131 was Unicarb tube labelled as Tenax and analysed on Tenax Method.

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

Analysts Name M.Angelova **Date of Analysis** 12.10.10
Date of Report 12.10.10

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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L. Gates, Laboratory Supervisor

Appendix D

Directional Dust Monitoring

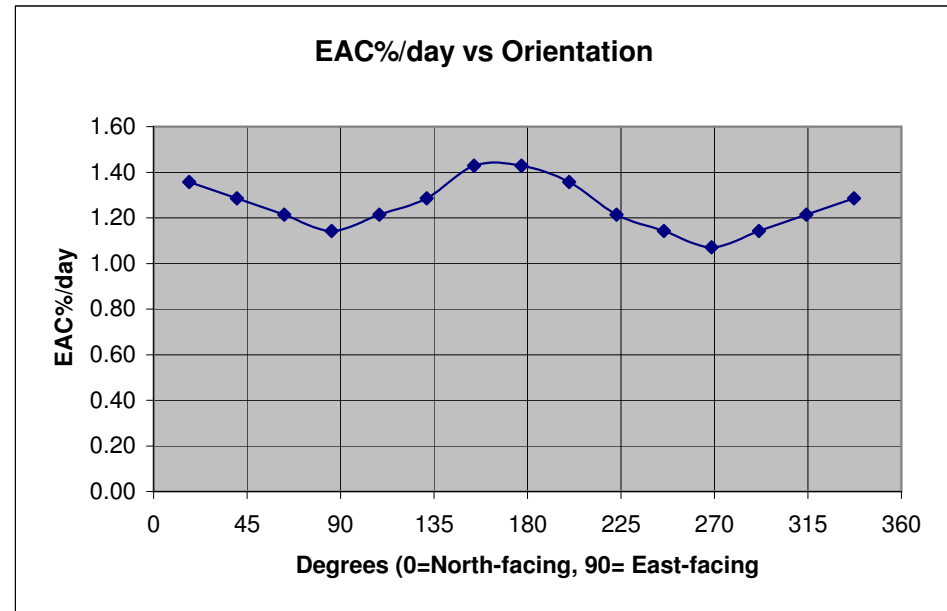
Gauge Number - North location 907BRI

Sticky Pad Data

Date On **20/08/2010** Date Off **03/09/2010** Days = 14

Clean = **90**

X Axis mm	Meter	Angle deg	EAC%/day
20	72	337	1.29
40	73	314	1.21
60	74	291	1.14
80	75	269	1.07
100	74	246	1.14
120	73	223	1.21
140	71	200	1.36
160	70	177	1.43
180	70	154	1.43
200	72	131	1.29
220	73	109	1.21
240	74	86	1.14
260	73	63	1.21
280	72	40	1.29
300	71	17	1.36



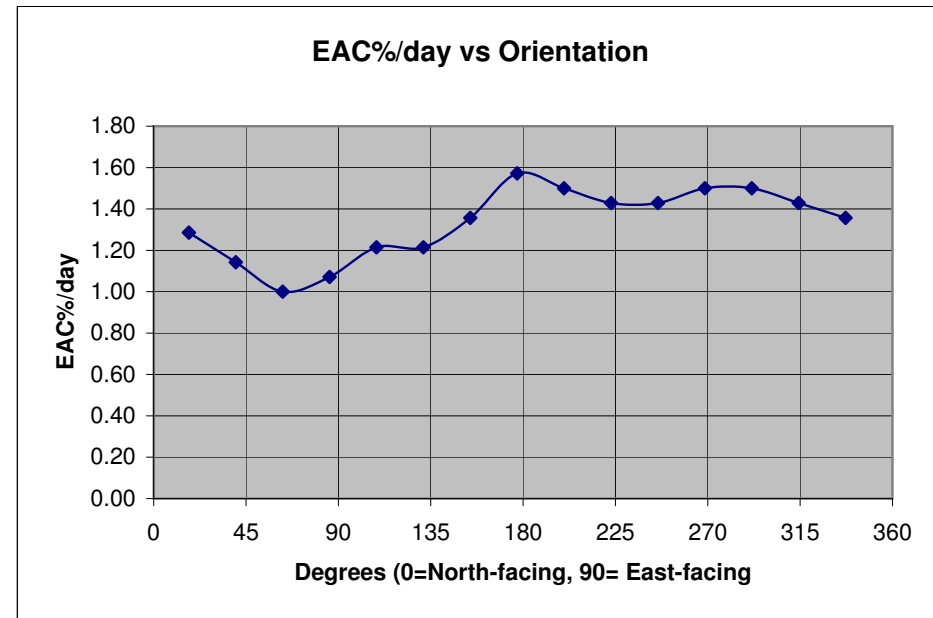
Note: Cells coloured yellow are inputs.
 The rest are either constants or calculated values.
 The calculation is based on taking readings at 40mm intervals along the sticky pad.

Gauge Number - NE1 location 907BRI

Sticky Pad Data

Date On **20/08/2010** Date Off **03/09/2010** Days = 14
 Clean = **90**

X Axis mm	Meter	Angle deg	EAC%/day
20	71	337	1.36
40	70	314	1.43
60	69	291	1.50
80	69	269	1.50
100	70	246	1.43
120	70	223	1.43
140	69	200	1.50
160	68	177	1.57
180	71	154	1.36
200	73	131	1.21
220	73	109	1.21
240	75	86	1.07
260	76	63	1.00
280	74	40	1.14
300	72	17	1.29



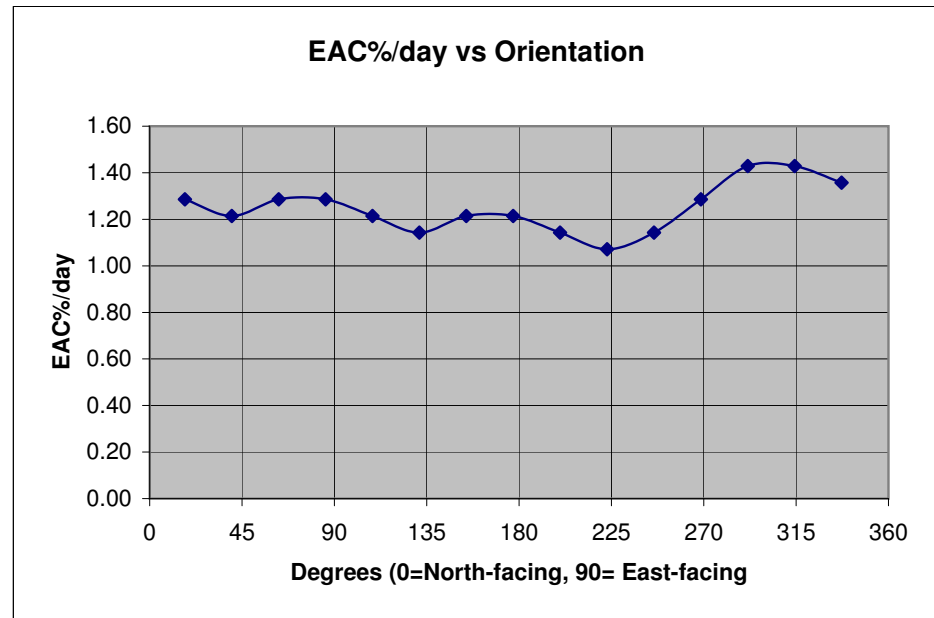
Note: Cells coloured yellow are inputs.
 The rest are either constants or calculated values.
 The calculation is based on taking readings at 40mm intervals along the sticky pad.

Gauge Number - NE2 location 907BRI

Sticky Pad Data

Date On **20/08/2010** Date Off **03/09/2010** Days = 14
 Clean = **90**

X Axis mm	Meter	Angle deg	EAC%/day
20	71	337	1.36
40	70	314	1.43
60	70	291	1.43
80	72	269	1.29
100	74	246	1.14
120	75	223	1.07
140	74	200	1.14
160	73	177	1.21
180	73	154	1.21
200	74	131	1.14
220	73	109	1.21
240	72	86	1.29
260	72	63	1.29
280	73	40	1.21
300	72	17	1.29



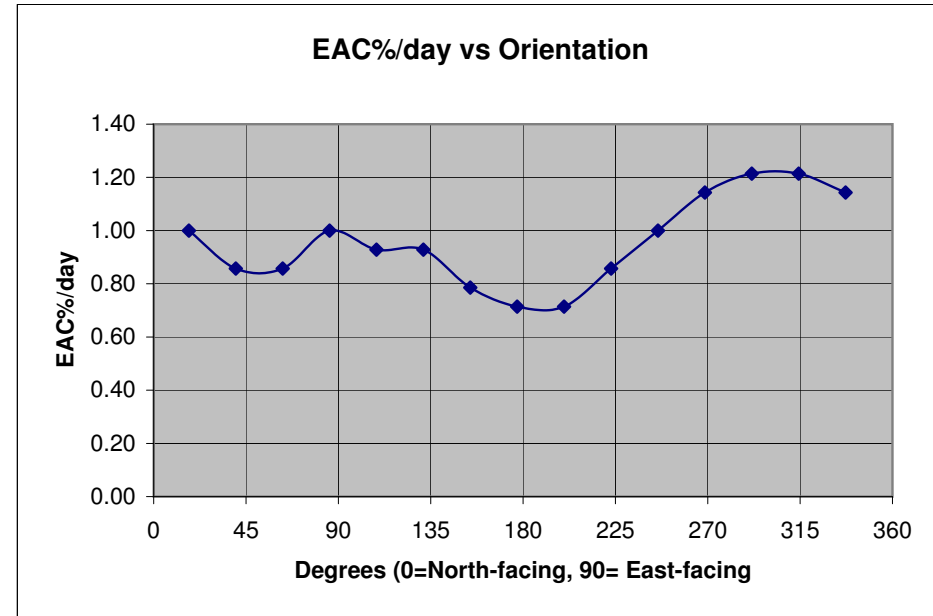
Note: Cells coloured yellow are inputs.
 The rest are either constants or calculated values.
 The calculation is based on taking readings at 40mm intervals along the sticky pad.

Gauge Number - South location 907BRI

Sticky Pad Data

Date On **20/08/2010** Date Off **03/09/2010** Days = 14
 Clean = **90**

X Axis mm	Meter	Angle deg	EAC%/day
20	74	337	1.14
40	73	314	1.21
60	73	291	1.21
80	74	269	1.14
100	76	246	1.00
120	78	223	0.86
140	80	200	0.71
160	80	177	0.71
180	79	154	0.79
200	77	131	0.93
220	77	109	0.93
240	76	86	1.00
260	78	63	0.86
280	78	40	0.86
300	76	17	1.00



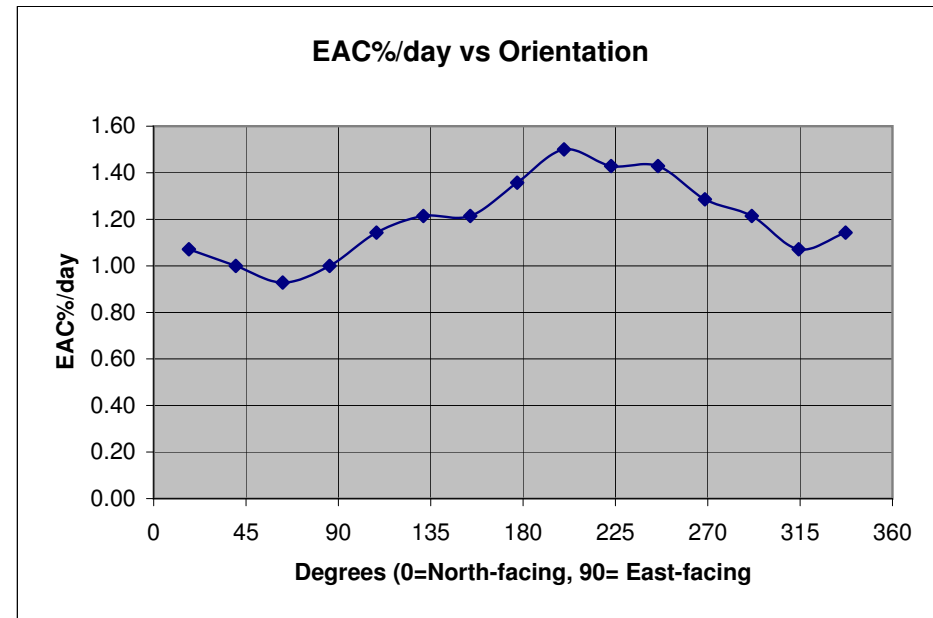
Note: Cells coloured yellow are inputs.
 The rest are either constants or calculated values.
 The calculation is based on taking readings at 40mm intervals along the sticky pad.

Gauge Number - West location 907BRI

Sticky Pad Data

Date On **20/08/2010** Date Off **03/09/2010** Days = 14
 Clean = **90**

X Axis mm	Meter	Angle deg	EAC%/day
20	74	337	1.14
40	75	314	1.07
60	73	291	1.21
80	72	269	1.29
100	70	246	1.43
120	70	223	1.43
140	69	200	1.50
160	71	177	1.36
180	73	154	1.21
200	73	131	1.21
220	74	109	1.14
240	76	86	1.00
260	77	63	0.93
280	76	40	1.00
300	75	17	1.07



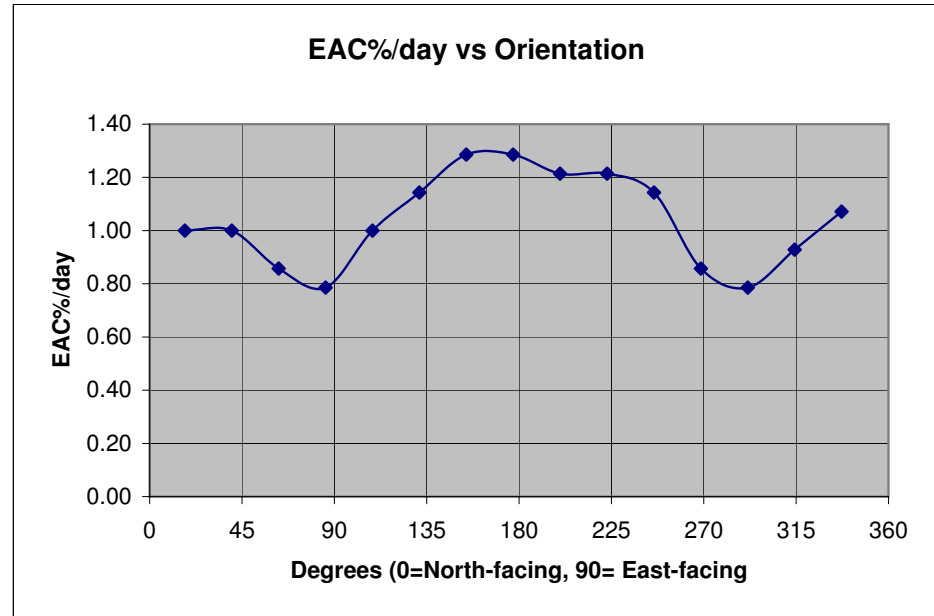
Note: Cells coloured yellow are inputs.
 The rest are either constants or calculated values.
 The calculation is based on taking readings at 40mm intervals along the sticky pad.

Gauge Number - East location 907BRI

Sticky Pad Data

Date On **20/08/2010** Date Off **03/09/2010** Days = 14
 Clean = **90**

X Axis mm	Meter	Angle deg	EAC%/day
20	75	337	1.07
40	77	314	0.93
60	79	291	0.79
80	78	269	0.86
100	74	246	1.14
120	73	223	1.21
140	73	200	1.21
160	72	177	1.29
180	72	154	1.29
200	74	131	1.14
220	76	109	1.00
240	79	86	0.79
260	78	63	0.86
280	76	40	1.00
300	76	17	1.00



Note: Cells coloured yellow are inputs.
 The rest are either constants or calculated values.
 The calculation is based on taking readings at 40mm intervals along the sticky pad.

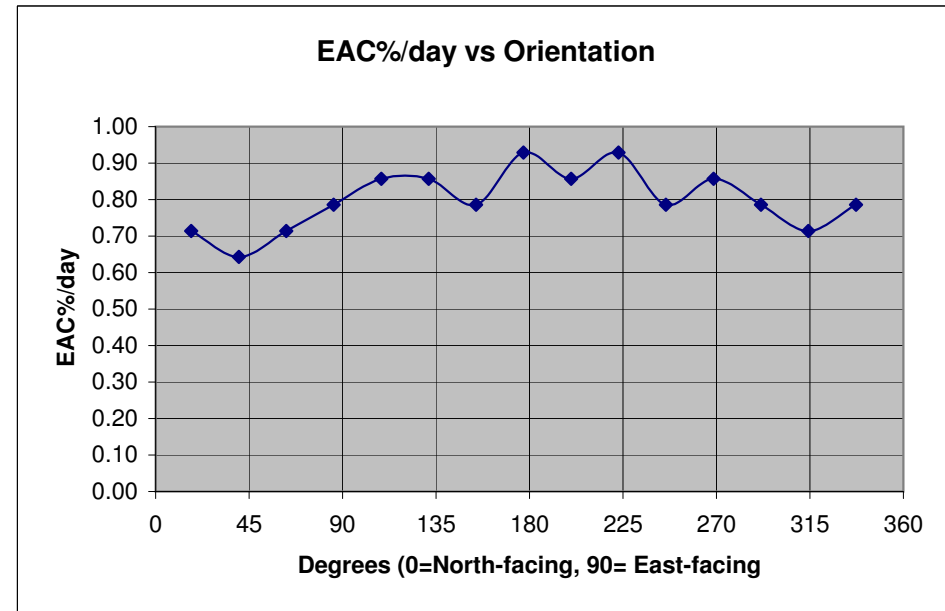
Gauge Number - North location 907BRI

Sticky Pad Data

Date On **03/09/2010** Date Off **17/09/2010** Days = 14

Clean = **90**

X Axis mm	Meter	Angle deg	EAC%/day
20	79	337	0.79
40	80	314	0.71
60	79	291	0.79
80	78	269	0.86
100	79	246	0.79
120	77	223	0.93
140	78	200	0.86
160	77	177	0.93
180	79	154	0.79
200	78	131	0.86
220	78	109	0.86
240	79	86	0.79
260	80	63	0.71
280	81	40	0.64
300	80	17	0.71



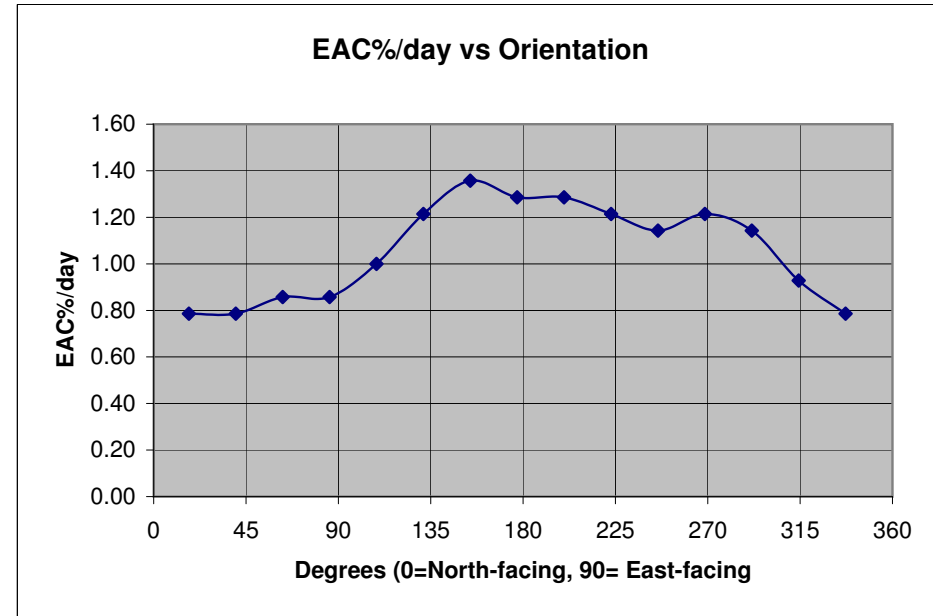
Note: Cells coloured yellow are inputs.
 The rest are either constants or calculated values.
 The calculation is based on taking readings at 40mm intervals along the sticky pad.

Gauge Number - NE1 location 907BRI

Sticky Pad Data

Date On **03/09/2010** Date Off **17/09/2010** Days = 14
 Clean = **90**

X Axis mm	Meter	Angle deg	EAC%/day
20	79	337	0.79
40	77	314	0.93
60	74	291	1.14
80	73	269	1.21
100	74	246	1.14
120	73	223	1.21
140	72	200	1.29
160	72	177	1.29
180	71	154	1.36
200	73	131	1.21
220	76	109	1.00
240	78	86	0.86
260	78	63	0.86
280	79	40	0.79
300	79	17	0.79



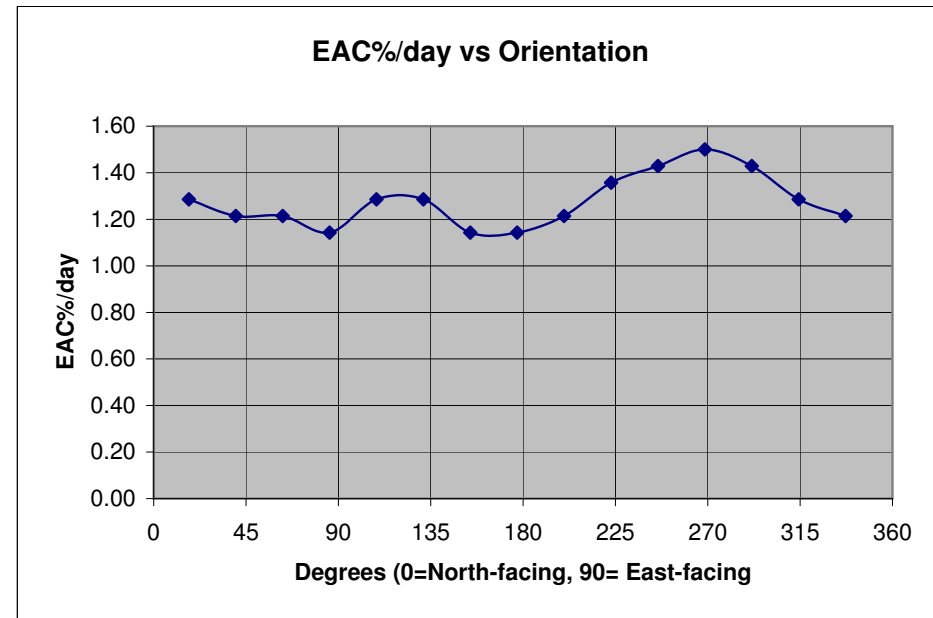
Note: Cells coloured yellow are inputs.
 The rest are either constants or calculated values.
 The calculation is based on taking readings at 40mm intervals along the sticky pad.

Gauge Number - NE2 location 907BRI

Sticky Pad Data

Date On **03/09/2010** Date Off **17/09/2010** Days = 14
 Clean = **90**

X Axis mm	Meter	Angle deg	EAC%/day
20	73	337	1.21
40	72	314	1.29
60	70	291	1.43
80	69	269	1.50
100	70	246	1.43
120	71	223	1.36
140	73	200	1.21
160	74	177	1.14
180	74	154	1.14
200	72	131	1.29
220	72	109	1.29
240	74	86	1.14
260	73	63	1.21
280	73	40	1.21
300	72	17	1.29



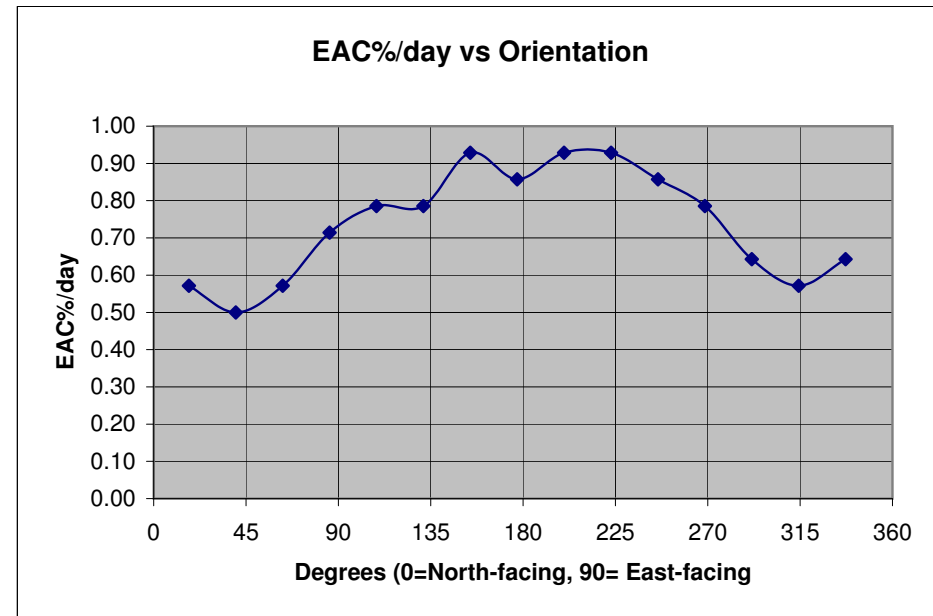
Note: Cells coloured yellow are inputs.
 The rest are either constants or calculated values.
 The calculation is based on taking readings at 40mm intervals along the sticky pad.

Gauge Number - South location 907BRI

Sticky Pad Data

Date On 03/09/2010 Date Off 17/09/2010 Days = 14
Clean = 90

X Axis mm	Meter	Angle deg	EAC%/day
20	81	337	0.64
40	82	314	0.57
60	81	291	0.64
80	79	269	0.79
100	78	246	0.86
120	77	223	0.93
140	77	200	0.93
160	78	177	0.86
180	77	154	0.93
200	79	131	0.79
220	79	109	0.79
240	80	86	0.71
260	82	63	0.57
280	83	40	0.50
300	82	17	0.57



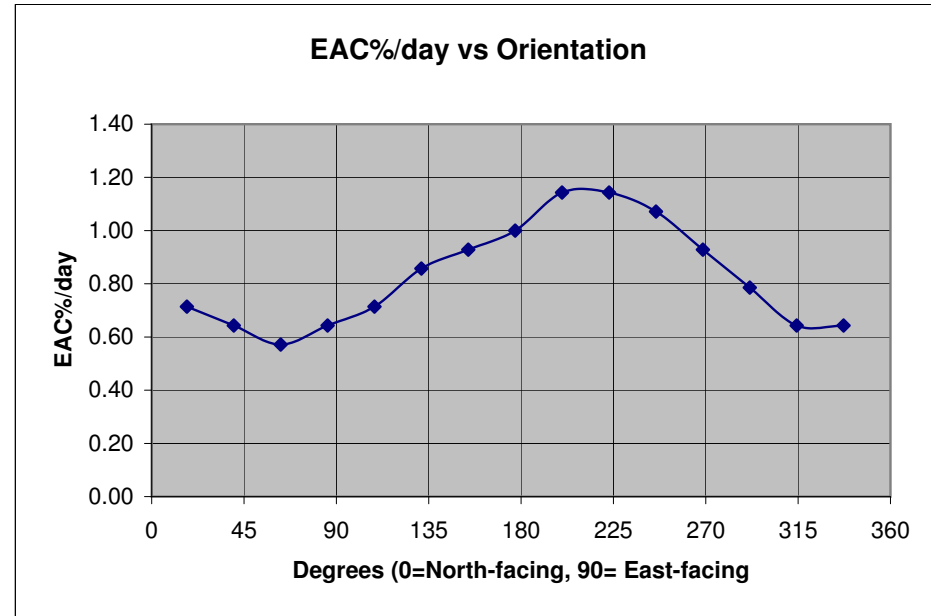
Note: Cells coloured yellow are inputs.
The rest are either constants or calculated values.
The calculation is based on taking readings at 40mm intervals along the sticky pad.

Gauge Number - West location 907BRI

Sticky Pad Data

Date On **03/09/2010** Date Off **17/09/2010** Days = 14
 Clean = **90**

X Axis mm	Meter	Angle deg	EAC%/day
20	81	337	0.64
40	81	314	0.64
60	79	291	0.79
80	77	269	0.93
100	75	246	1.07
120	74	223	1.14
140	74	200	1.14
160	76	177	1.00
180	77	154	0.93
200	78	131	0.86
220	80	109	0.71
240	81	86	0.64
260	82	63	0.57
280	81	40	0.64
300	80	17	0.71



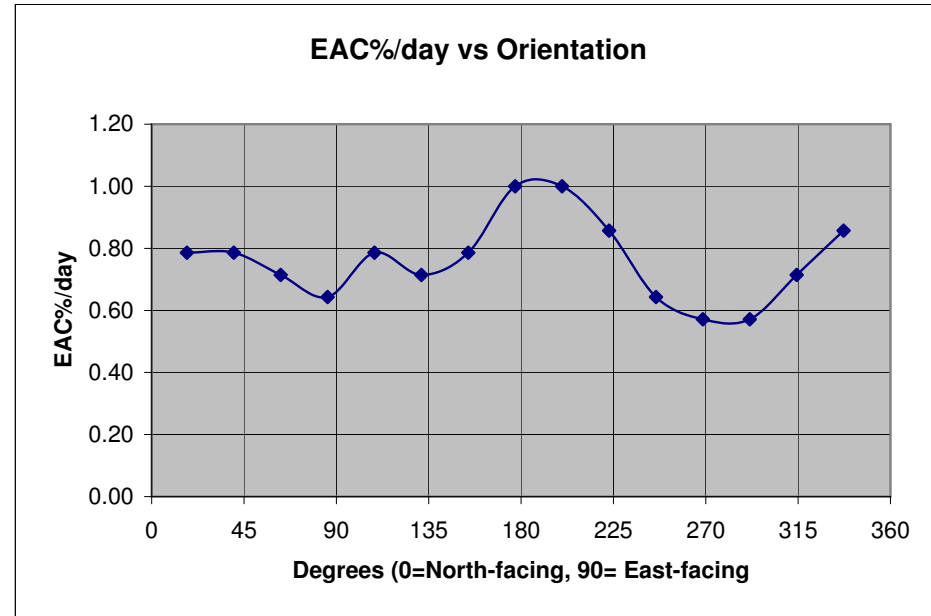
Note: Cells coloured yellow are inputs.
 The rest are either constants or calculated values.
 The calculation is based on taking readings at 40mm intervals along the sticky pad.

Gauge Number - East location 907BRI

Sticky Pad Data

Date On **03/09/2010** Date Off **17/09/2010** Days = 14
 Clean = **90**

X Axis mm	Meter	Angle deg	EAC%/day
20	78	337	0.86
40	80	314	0.71
60	82	291	0.57
80	82	269	0.57
100	81	246	0.64
120	78	223	0.86
140	76	200	1.00
160	76	177	1.00
180	79	154	0.79
200	80	131	0.71
220	79	109	0.79
240	81	86	0.64
260	80	63	0.71
280	79	40	0.79
300	79	17	0.79



Note: Cells coloured yellow are inputs.
 The rest are either constants or calculated values.
 The calculation is based on taking readings at 40mm intervals along the sticky pad.

Appendix E
Groundwater Level Data

Date	BH6/06	S3/4	BH4	P67**	BH19	BH10B/06	BH9	S1/8	BH11*	S2/6	BH1/06	BH3/06	BH8/06	BHB1	BHB2	BHB3	W1 (n)	W2	W3 (s)	Riddy 1	Riddy 2	Riddy 3	Riddy 4
31/08/2010	10.12	10.59	10.834	Blocked	Lost	10.481	10.509	9.834	9.713	10.683	Lost	covered	covered	10.08	Lost	Lost	10.41	10.36	10.39	9.209	9.294	9.550	9.649
01/09/2010	10.14	10.58	10.794	Blocked	Lost	10.521	10.499	9.844	9.723	10.673	Lost	covered	covered	10.03	Lost	Lost	10.4	10.34	10.37	9.199	9.294	9.550	9.649
02/09/2010	10.15	10.58	10.744	Blocked	Lost	10.591	10.499	9.824	9.733	10.643	Lost	covered	covered	10	Lost	Lost	10.39	10.34	10.36	9.199	9.294	9.550	9.649
03/09/2010	10.14	10.58	10.734	Blocked	Lost	10.611	10.489	9.814	9.723	10.623	Lost	covered	covered	9.97	Lost	Lost	10.36	10.3	10.35	9.209	9.304	9.550	9.649
06/09/2010	10.17	10.59	10.704	Blocked	Lost	10.661	10.499	9.824	9.763	10.613	Lost	covered	covered	9.96	Lost	Lost	10.34	10.25	10.33	9.209	9.294	9.550	9.649
07/09/2010	10.27	10.59	10.694	Blocked	Lost	10.731	10.529	9.864	9.753	10.593	Lost	covered	covered	9.93	Lost	Lost	10.33	10.24	10.31	9.209	9.304	9.550	9.649
08/09/2010	10.27	10.6	10.694	Blocked	Lost	10.701	10.499	9.864	9.733	10.603	Lost	covered	covered	9.95	Lost	Lost	10.32	10.24	10.3	9.209	9.294	9.550	9.649
09/09/2010	10.28	10.59	10.684	Blocked	Lost	10.671	10.489	9.854	9.723	10.593	Lost	covered	covered	9.96	Lost	Lost	10.32	10.24	10.3	9.199	9.294	9.550	9.649
10/09/2010	10.29	10.6	10.684	Blocked	Lost	10.661	10.489	9.864	9.693	10.593	Lost	covered	covered	9.98	Lost	Lost	10.3	10.23	10.3	9.199	9.294	9.550	9.649
13/09/2010	10.31	10.6	10.684	Blocked	Lost	10.591	10.489	9.854	9.663	10.603	Lost	covered	covered	9.99	Lost	Lost	10.29	10.23	10.26	9.199	9.294	9.550	9.639
14/09/2010	10.31	10.6	10.674	Blocked	Lost	10.541	10.469	9.854	9.653	10.603	Lost	covered	covered	9.99	Lost	Lost	10.28	10.22	10.25	9.199	9.284	9.540	9.639
15/09/2010	10.32	10.59	10.664	Blocked	Lost	10.541	10.479	9.844	9.653	10.583	Lost	covered	covered	10	Lost	Lost	10.27	10.22	10.26	9.199	9.284	9.540	9.639
16/09/2010	10.32	10.59	10.644	Blocked	Lost	10.521	10.479	9.834	9.653	10.583	Lost	covered	covered	10	Lost	Lost	10.26	10.23	10.26	9.199	9.284	9.540	9.649
17/09/2010	10.31	10.59	10.634	Blocked	Lost	10.511	10.479	9.824	9.653	10.593	Lost	covered	covered	9.99	Lost	Lost	10.27	10.22	10.26	9.199	9.284	9.550	9.639
20/09/2010	10.31	10.58	10.644	Blocked	Lost	10.511	10.469	9.834	9.663	10.573	Lost	covered	covered	9.99	Lost	Lost	10.29	10.25	10.3	9.199	9.294	9.540	9.649
21/09/2010	10.29	10.59	10.614	Blocked	Lost	10.491	10.449	9.804	9.653	10.543	Lost	covered	covered	9.96	Lost	Lost	10.26	10.24	10.27	9.209	9.304	9.550	9.639
22/09/2010	10.26	10.59	10.564	Blocked	Lost	10.471	10.459	9.794	9.663	10.533	Lost	covered	covered	9.94	Lost	Lost	10.26	10.23	10.25	9.199	9.294	9.540	9.649
23/09/2010	10.26	10.58	10.544	Blocked	Lost	10.451	10.459	9.784	9.663	10.513	Lost	covered	covered	9.92	Lost	Lost	10.25	10.21	10.25	9.199	9.294	9.540	9.639
24/09/2010	10.26	10.58	10.514	Blocked	Lost	10.441	10.459	9.784	9.653	10.503	Lost	covered	covered	9.9	Lost	Lost	10.24	10.21	10.24	9.199	9.294	9.550	9.649
27/09/2010	10.24	10.59	10.484	Blocked	Lost	10.421	10.459	Silted up	9.653	10.483	Lost	covered	covered	9.86	Lost	Lost	10.24	10.19	10.22	9.209	9.304	9.550	9.649
28/09/2010	10.24	10.59	10.474	Blocked	Lost	10.421	10.469	Silted up	9.653	10.473	Lost	covered	covered	9.84	Lost	Lost	10.24	10.18	10.23	9.209	9.304	9.550	9.659
29/09/2010	10.23	10.6	10.434	Blocked	Lost	10.421	10.449	Silted up	9.663	10.473	Lost	covered	covered	9.83	Lost	Lost	10.23	10.18	10.22	9.199	9.294	9.550	9.649
30/09/2010	10.1	10.59	10.444	Blocked	Lost	10.421	10.459	Silted up	9.653	10.353	Lost	covered	covered	9.82	Lost	Lost	10.22	10.17	10.21	9.199	9.304	9.550	9.649
01/10/2010	10.11	10.6	10.434	Blocked	Lost	10.411	10.449	Silted up	9.653	10.373	Lost	covered	covered	9.81	Lost	Lost	10.2	10.16	10.2	9.199	9.294	9.550	9.639

Appendix F
Surface Water Analysis Reports



Scientific Analysis Laboratories

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: 214723-1

Date of Report: 12-Oct-2010

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

Customer Contact: The Project Management

Customer Job Reference: 907BRI
Customer Purchase Order: 907BRI
Date Job Received at SAL: 06-Oct-2010
Date Analysis Started: 06-Oct-2010
Date Analysis Completed: 12-Oct-2010

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: 214723											
Customer Reference: 907BRI											
Water		Analysed as Water									
Vertase Hauxton Suite											
SAL Reference		214723 001	214723 002	214723 003	214723 004	214723 005	214723 006	214723 007			
Customer Sample Reference		BH8/06	4/06	BH6/06	BH4	BHB1	S2/6	BH9			
Date Sampled		29-SEP-2010	29-SEP-2010	29-SEP-2010	29-SEP-2010	29-SEP-2010	29-SEP-2010	01-OCT-2010			
Determinand	Method	Test Sample	LOD	Units							
Electrical Conductivity	T7	AR	10	µS/cm	900	1200	890	1400	2100	1300	3000
pH	T7	AR			7.4	7.3	7.1	7.0	6.7	7.6	6.8

SAL Reference: 214723											
Customer Reference: 907BRI											
Water		Analysed as Water									
Vertase Hauxton Suite											
SAL Reference		214723 008	214723 009	214723 010	214723 011	214723 012	214723 013	214723 014			
Customer Sample Reference		BH11	S3/4	RIDDY UPSTREAM	CAM UPSTREAM	RIDDY DOWNSTREAM	CAM DOWNSTREAM	BH10B/06			
Date Sampled		01-OCT-2010	01-OCT-2010	01-OCT-2010	01-OCT-2010	01-OCT-2010	01-OCT-2010	01-OCT-2010			
Determinand	Method	Test Sample	LOD	Units							
Electrical Conductivity	T7	AR	10	µS/cm	480	4600	820	790	800	800	1700
pH	T7	AR			7.3	6.7	7.8	8.0	7.8	7.9	7.3

SAL Reference: 214723											
Customer Reference: 907BRI											
Water		Analysed as Water									
Vertase Hauxton OP/ON Suite											
SAL Reference		214723 001	214723 002	214723 003	214723 004	214723 005	214723 006	214723 007			
Customer Sample Reference		BH8/06	4/06	BH6/06	BH4	BHB1	S2/6	BH9			
Date Sampled		29-SEP-2010	29-SEP-2010	29-SEP-2010	29-SEP-2010	29-SEP-2010	29-SEP-2010	01-OCT-2010			
Determinand	Method	Test Sample	LOD	Units							
Dimefox	T16	AR	0.1	µg/l	0.1	(9) <10	<0.1	(9) <10	(9) <10	(9) <10	<0.1
Ethofumesate	T16	AR	0.1	µg/l	63	3000	1.4	680	1200	930	23
Hempa	T16	AR	0.1	µg/l	<0.1	(9) <10	<0.1	(9) <10	(9) <10	(9) <10	<0.1
Schradan	T16	AR	0.1	µg/l	4.2	19	<0.1	9.9	(9) <10	(9) <10	<0.1
Simazine	T16	AR	0.01	µg/l	2.6	7.8	<0.01	2.9	(9) <1.0	47	<0.01

SAL Reference: 214723											
Customer Reference: 907BRI											
Water		Analysed as Water									
Vertase Hauxton OP/ON Suite											
SAL Reference		214723 008	214723 009	214723 010	214723 011	214723 012	214723 013	214723 014			
Customer Sample Reference		BH11	S3/4	RIDDY UPSTREAM	CAM UPSTREAM	RIDDY DOWNSTREAM	CAM DOWNSTREAM	BH10B/06			
Date Sampled		01-OCT-2010	01-OCT-2010	01-OCT-2010	01-OCT-2010	01-OCT-2010	01-OCT-2010	01-OCT-2010			
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	(9) <10
Ethofumesate	T16	AR	0.1	µg/l	2.3	1.5	<0.1	<0.1	<0.1	<0.1	4300
Hempa	T16	AR	0.1	µg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	(9) <10
Schradan	T16	AR	0.1	µg/l	<0.1	47	<0.1	<0.1	<0.1	<0.1	(9) <10
Simazine	T16	AR	0.01	µg/l	0.24	<0.01	<0.01	<0.01	<0.01	<0.01	750

SAL Reference: 214723
Customer Reference: 907BRI

Water Analysed as Water
Vertase Hauxton Phenoxy Acid Herbs Suite

SAL Reference	214723 001	214723 002	214723 003	214723 004	214723 005	214723 006	214723 007				
Customer Sample Reference	BH8/06	4/06	BH6/06	BH4	BHB1	S2/6	BH9				
Date Sampled	29-SEP-2010	29-SEP-2010	29-SEP-2010	29-SEP-2010	29-SEP-2010	29-SEP-2010	01-OCT-2010				
Determinand	Method	Test Sample	LOD	Units							
Dicamba	T16	AR	0.1	µg/l	0.7	<0.1	<0.1	2.8	5.1	67	0.4
Dichlorprop	T16	AR	0.1	µg/l	0.3	7.2	<0.1	4.8	10	11	0.5
Phenoxy Acetic acid herbicide: MCPA	T16	AR	0.1	µg/l	8.2	6.3	<0.1	<0.1	3.3	⁽⁹⁾ <1.0	<0.1
Mecoprop	T16	AR	0.1	µg/l	1.6	22	0.1	88	160	84	140

SAL Reference: 214723
Customer Reference: 907BRI

Water Analysed as Water
Vertase Hauxton Phenoxy Acid Herbs Suite

SAL Reference	214723 008	214723 009	214723 010	214723 011	214723 012	214723 013	214723 014				
Customer Sample Reference	BH11	S3/4	RIDDY UPSTREAM	CAM UPSTREAM	RIDDY DOWNSTREAM	CAM DOWNSTREAM	BH10B/06				
Date Sampled	01-OCT-2010	01-OCT-2010	01-OCT-2010	01-OCT-2010	01-OCT-2010	01-OCT-2010	01-OCT-2010				
Determinand	Method	Test Sample	LOD	Units							
Dicamba	T16	AR	0.1	µg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	31
Dichlorprop	T16	AR	0.1	µg/l	<0.1	8.1	<0.1	<0.1	<0.1	<0.1	75
Phenoxy Acetic acid herbicide: MCPA	T16	AR	0.1	µg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	⁽⁹⁾ <1.0
Mecoprop	T16	AR	0.1	µg/l	0.8	71	<0.1	<0.1	<0.1	<0.1	490

SAL Reference: 214723
Customer Reference: 907BRI

Water Analysed as Water
Vertase Hauxton SVOC Suite

SAL Reference	214723 001	214723 002	214723 003	214723 004	214723 005	214723 006	214723 007				
Customer Sample Reference	BH8/06	4/06	BH6/06	BH4	BHB1	S2/6	BH9				
Date Sampled	29-SEP-2010	29-SEP-2010	29-SEP-2010	29-SEP-2010	29-SEP-2010	29-SEP-2010	01-OCT-2010				
Determinand	Method	Test Sample	LOD	Units							
2,4,6-Trichlorophenol	T16	AR	10	µg/l	<10	10	<10	10	<10	40	<10
2-Methyl-4,6-dinitrophenol	T16	AR	10	µg/l	<10	<10	<10	20	<10	<10	<10
4-Chloro-2-methylphenol	T16	AR	10	µg/l	<10	120	<10	640	1200	<10	<10
Bis (2-chloroethyl) ether	T16	AR	10	µg/l	<10	1800	<10	150	290	<10	1200
Phenol	T16	AR	10	µg/l	⁽¹⁶²⁾ <50	⁽¹⁶²⁾ <50	⁽¹⁶²⁾ <50	⁽¹⁶²⁾ <50	⁽¹⁶²⁾ <50	⁽¹⁶²⁾ <50	⁽¹⁶²⁾ <50

SAL Reference: 214723
Customer Reference: 907BRI

Water Analysed as Water
Vertase Hauxton SVOC Suite

SAL Reference	214723 008	214723 009	214723 010	214723 011	214723 012	214723 013	214723 014				
Customer Sample Reference	BH11	S3/4	RIDDY UPSTREAM	CAM UPSTREAM	RIDDY DOWNSTREAM	CAM DOWNSTREAM	BH10B/06				
Date Sampled	01-OCT-2010	01-OCT-2010	01-OCT-2010	01-OCT-2010	01-OCT-2010	01-OCT-2010	01-OCT-2010				
Determinand	Method	Test Sample	LOD	Units							
2,4,6-Trichlorophenol	T16	AR	10	µg/l	<10	<10	<10	<10	<10	<10	520
2-Methyl-4,6-dinitrophenol	T16	AR	10	µg/l	<10	<10	<10	<10	<10	<10	90
4-Chloro-2-methylphenol	T16	AR	10	µg/l	<10	<10	<10	<10	<10	<10	120
Bis (2-chloroethyl) ether	T16	AR	10	µg/l	<10	3600	<10	<10	<10	<10	30
Phenol	T16	AR	10	µg/l	⁽¹⁶²⁾ <50	⁽¹⁶²⁾ <50	⁽¹⁶²⁾ <50	⁽¹⁶²⁾ <50	⁽¹⁶²⁾ <50	⁽¹⁶²⁾ <50	⁽¹⁶²⁾ <50

SAL Reference: 214723
Customer Reference: 907BRI

Water Analysed as Water
Vertase Hauxton VOC Suite

SAL Reference		214723 001	214723 002	214723 003	214723 004	214723 005	214723 006	214723 007			
Customer Sample Reference		BH8/06	4/06	BH6/06	BH4	BHB1	S2/6	BH9			
Date Sampled		29-SEP-2010	29-SEP-2010	29-SEP-2010	29-SEP-2010	29-SEP-2010	29-SEP-2010	01-OCT-2010			
Determinand	Method	Test Sample	LOD	Units							
1,2-Dichlorobenzene	T54	AR	1	µg/l	3	33	<1	2	2	<1	<1
1,2-Dichloroethane	T54	AR	1	µg/l	(13) <1	(13) <1	(13) <1	(13) 7	(13) 16	(13) <1	(13) <1
Cis-1,2-Dichloroethylene	T54	AR	1	µg/l	<1	<1	<1	570	1100	<1	3
Cyclohexanone	T54	AR	10	µg/l	<10	<10	<10	<10	<10	<10	<10
Tetrachloroethylene	T54	AR	1	µg/l	29	<1	2	9	5	10	<1
Toluene	T54	AR	1	µg/l	<1	(19) 16000	1	17	27	14	<1
Trichloroethylene	T54	AR	1	µg/l	3	<1	<1	<1	6	5	<1
Vinyl chloride	T54	AR	1	µg/l	<1	<1	<1	110	370	<1	1
Xylene (Total)	T54	AR	1	µg/l	2	(19) 1100	<1	56	530	<1	<1

SAL Reference: 214723
Customer Reference: 907BRI

Water Analysed as Water
Vertase Hauxton VOC Suite

SAL Reference		214723 008	214723 009	214723 010	214723 011	214723 012	214723 013	214723 014			
Customer Sample Reference		BH11	S3/4	RIDDY UPSTREAM	CAM UPSTREAM	RIDDY DOWNSTREAM	CAM DOWNSTREAM	BH10B/06			
Date Sampled		01-OCT-2010	01-OCT-2010	01-OCT-2010	01-OCT-2010	01-OCT-2010	01-OCT-2010	01-OCT-2010			
Determinand	Method	Test Sample	LOD	Units							
1,2-Dichlorobenzene	T54	AR	1	µg/l	<1	<1	<1	<1	<1	<1	2
1,2-Dichloroethane	T54	AR	1	µg/l	(13) <1	(13) <1	(13) <1	(13) <1	(13) <1	(13) <1	(13) <1
Cis-1,2-Dichloroethylene	T54	AR	1	µg/l	<1	<1	<1	<1	3	<1	75
Cyclohexanone	T54	AR	10	µg/l	<10	<10	<10	<10	<10	<10	<10
Tetrachloroethylene	T54	AR	1	µg/l	<1	<1	2	2	2	2	15
Toluene	T54	AR	1	µg/l	<1	63	<1	<1	<1	<1	7
Trichloroethylene	T54	AR	1	µg/l	<1	<1	<1	<1	3	<1	14
Vinyl chloride	T54	AR	1	µg/l	<1	<1	<1	<1	<1	<1	17
Xylene (Total)	T54	AR	1	µg/l	<1	63	<1	<1	<1	<1	2

Index to symbols used in 214723-1

Value	Description
AR	As Received
9	LOD raised due to dilution of sample
19	Due to high levels the analysis was conducted on a diluted sample
13	Results have been blank corrected.
162	LOD determined by 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
Electrical Conductivity	T7	AR	10	µS/cm	N	001-014
pH	T7	AR			U	001-014
Dimefox	T16	AR	0.1	µg/l	N	001-014
Ethofumesate	T16	AR	0.1	µg/l	N	001-014

Determinand	Method	Test Sample	LOD	Units	Symbol	SAL References
Hempa	T16	AR	0.1	µg/l	N	001-014
Schradan	T16	AR	0.1	µg/l	N	001-014
Simazine	T16	AR	0.01	µg/l	N	001-014
Dicamba	T16	AR	0.1	µg/l	N	001-014
Dichlorprop	T16	AR	0.1	µg/l	N	001-014
Phenoxy Acetic acid herbicide: MCPA	T16	AR	0.1	µg/l	N	001-014
Mecoprop	T16	AR	0.1	µg/l	N	001-014
2,4,6-Trichlorophenol	T16	AR	10	µg/l	U	001-014
2-Methyl-4,6-dinitrophenol	T16	AR	10	µg/l	N	001-014
4-Chloro-2-methylphenol	T16	AR	10	µg/l	N	001-014
Bis (2-chloroethyl) ether	T16	AR	10	µg/l	U	001-014
Phenol	T16	AR	10	µg/l	U	001-014
1,2-Dichlorobenzene	T54	AR	1	µg/l	U	001-014
1,2-Dichloroethane	T54	AR	1	µg/l	U	001-014
Cis-1,2-Dichloroethylene	T54	AR	1	µg/l	U	001-014
Cyclohexanone	T54	AR	10	µg/l	N	001-014
Tetrachloroethylene	T54	AR	1	µg/l	U	001-014
Toluene	T54	AR	1	µg/l	U	001-014
Trichloroethylene	T54	AR	1	µg/l	U	001-014
Vinyl chloride	T54	AR	1	µg/l	U	001-014
Xylene (Total)	T54	AR	1	µg/l	U	001-014

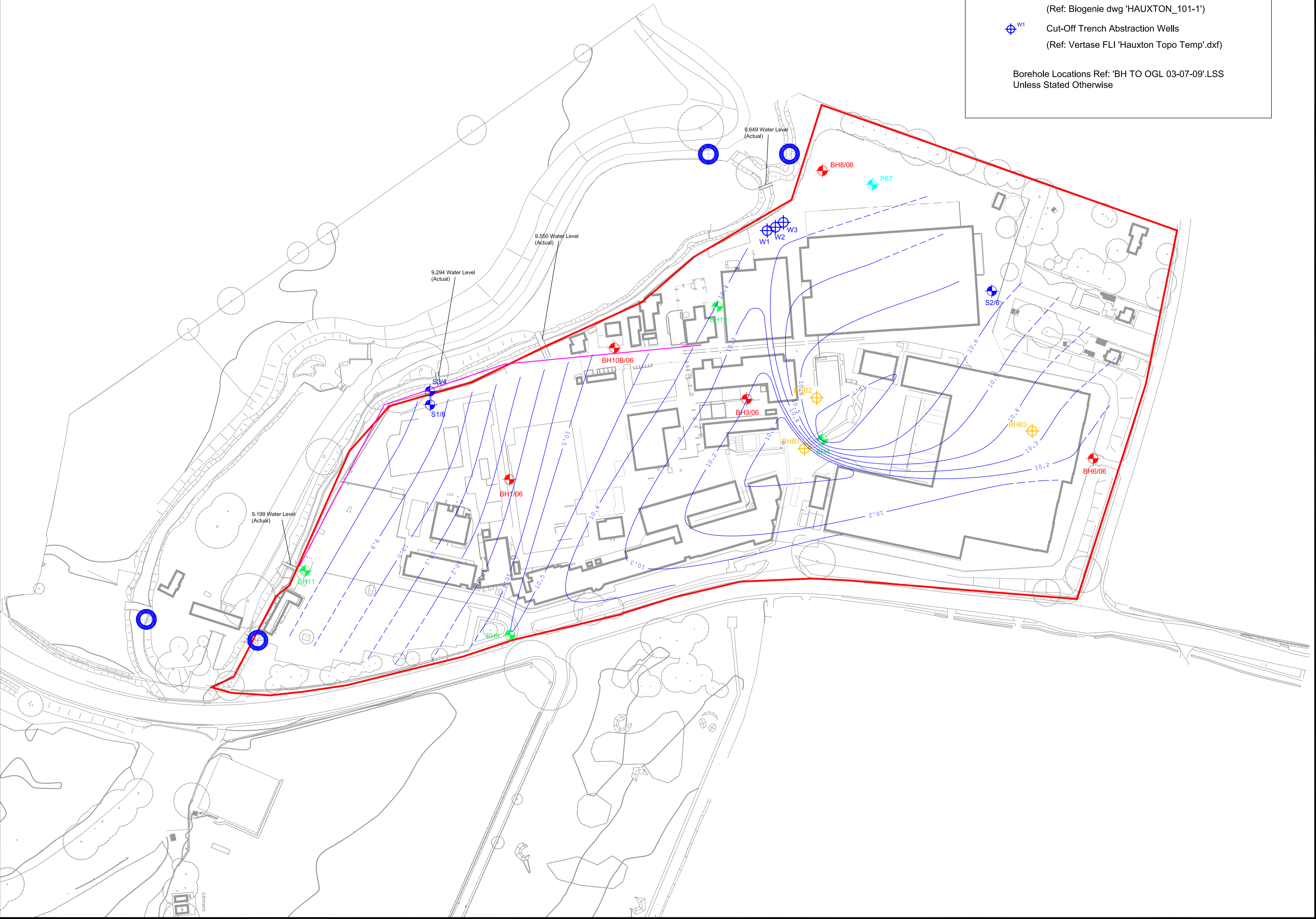


Appendix G
Groundwater Contour Plots

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



Rev.	Description	Revised By	Date
	FIRST ISSUE		22-09-10

Vertase F.L.I.

- Bristol Head Office: Tel: 01275 397600 Fax: 01275 397601
- Sheffield Office: Tel: 01246 813289 Fax: 01246 812983
- Hertford Office: Tel: 01992 535757 Fax: 01992 535858
- Manchester Office: Tel: 01614 372708 Fax: 01614 376300

email: info@vertasefli.co.uk
www.vertasefli.com

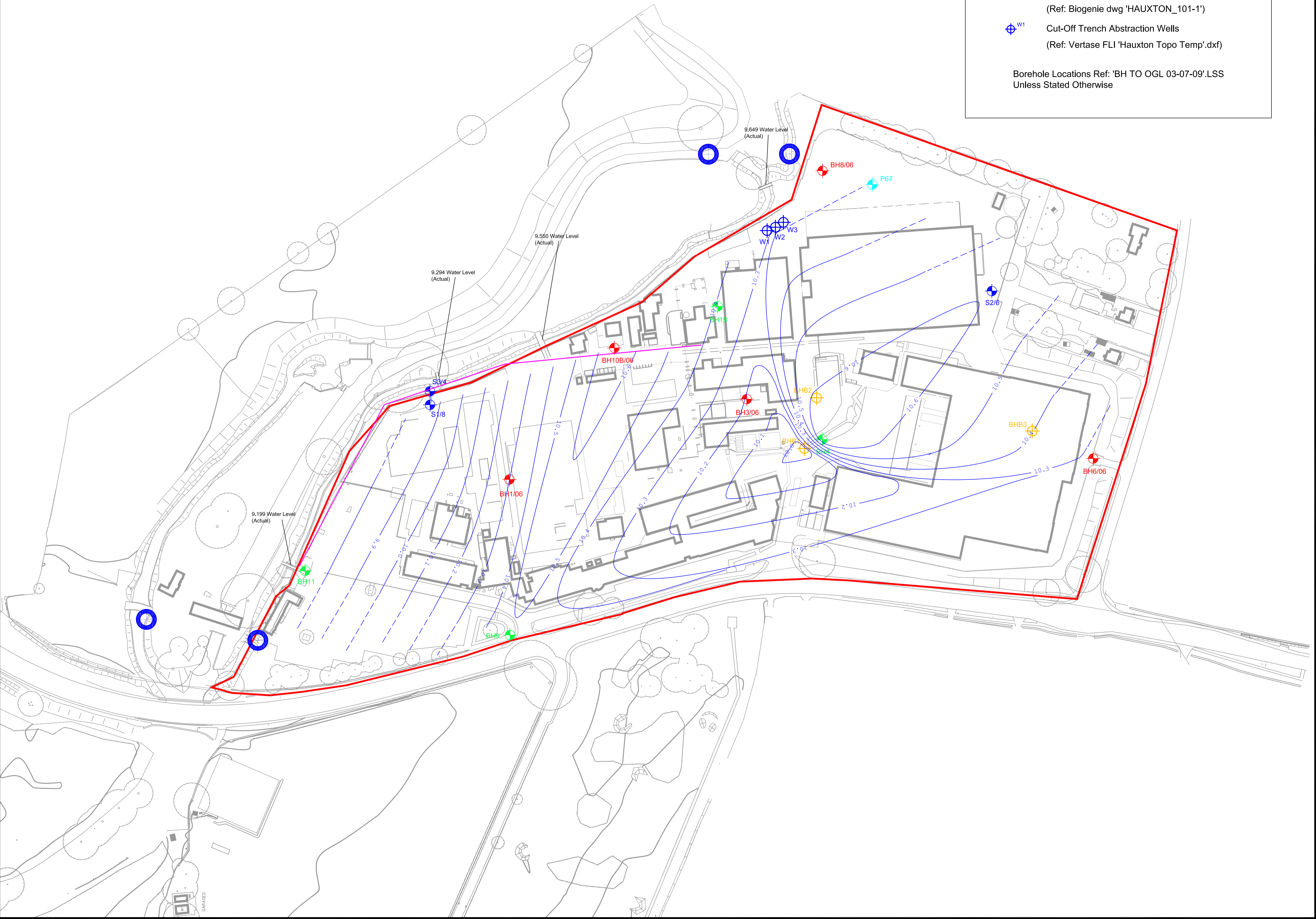
Site Address:	Rev:
Bayer Site Hauxton Cambridge	

Title: Ground Water Contours 02-09-10		
Client: Harrow Estates		
Drawn: MRG	Checked: MA	Approved: MA
Dwg: D907_104	Contract: 907 BR1	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



Rev.	Description	Revised By	Date
	FIRST ISSUE		07-10-10

Vertase F.L.I.

- Bristol Head Office: Tel: 01275 397600 Fax: 01275 397601
- Sheffield Office: Tel: 01246 813289 Fax: 01246 812983
- Hertford Office: Tel: 01992 535757 Fax: 01992 535858
- Manchester Office: Tel: 01614 372708 Fax: 01614 376300

email: info@vertasefli.co.uk
www.vertasefli.com

Site Address: Bayer Site, Hauxton, Cambridge

Title: Ground Water Contours 09-09-10

Client: Harrow Estates

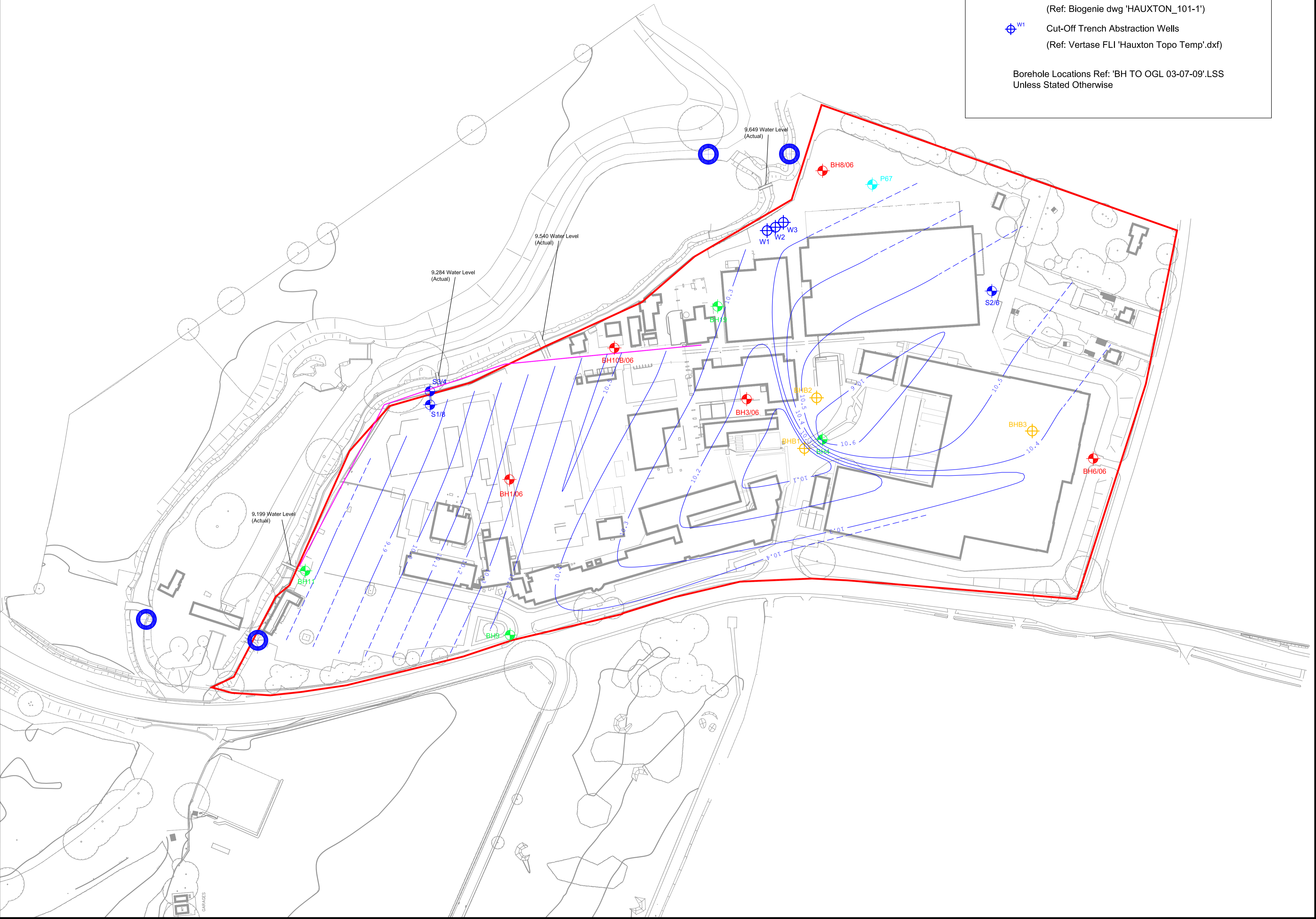
Drawn: MRG Checked: MA Approved: MA

Dwg: D907_105 Contract: 907 BR1 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



Rev.	Description	Revised By	Date
	FIRST ISSUE		07-10-10

Vertase F.L.I.

- Bristol Head Office: Tel: 01275 397600 Fax: 01275 397601
- Sheffield Office: Tel: 01246 813289 Fax: 01246 812983
- Hertford Office: Tel: 01992 535757 Fax: 01992 535858
- Manchester Office: Tel: 01614 372708 Fax: 01614 376300

email: info@vertasefli.co.uk
www.vertasefli.com

Site Address: Bayer Site, Hauxton, Cambridge

Title: Ground Water Contours 16-09-10

Client: Harrow Estates

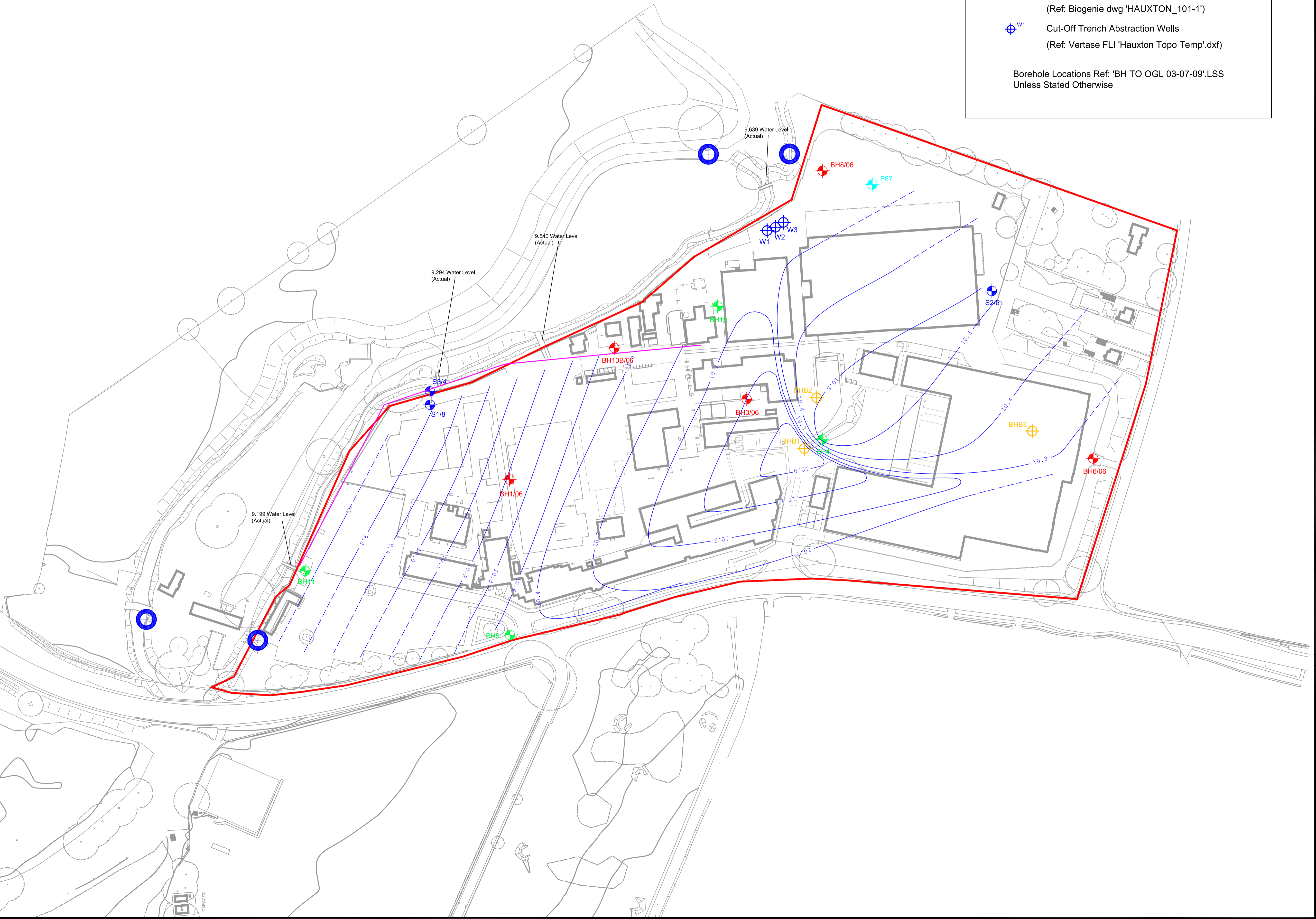
Drawn: MRG Checked: MA Approved: MA

Dwg: D907_106 Contract: 907 BR1 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



Rev.	Description	Revised By	Date
	FIRST ISSUE		07-10-10

Vertase F.L.I.

- Bristol Head Office: Tel: 01275 397600 Fax: 01275 397601
- Sheffield Office: Tel: 01246 813289 Fax: 01246 812983
- Hertford Office: Tel: 01992 535757 Fax: 01992 535858
- Manchester Office: Tel: 01614 372708 Fax: 01614 376300

email: info@vertasefli.co.uk
www.vertasefli.com

Site Address: Bayer Site, Hauxton, Cambridge






Title: Ground Water Contours 23-09-10

Client: Harrow Estates

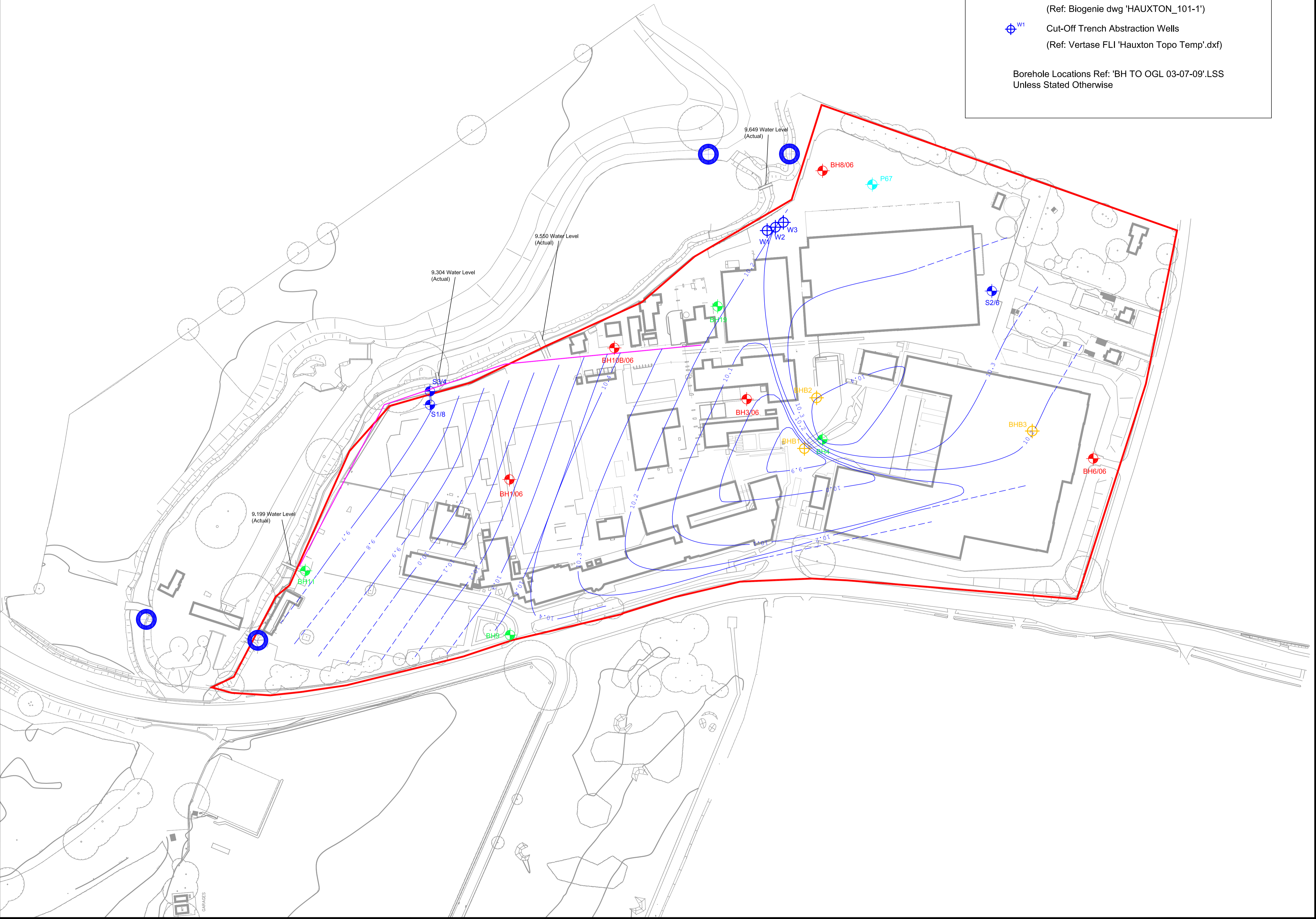
Drawn: MRG Checked: MA Approved: MA

Dwg: D907_107 Contract: 907 BR1 Scale: 1:1000

Legend

-  Atkins Exploratory Hole Location
-  Previous Borehole Location
-  Water Sampling Location
-  Biogenie Boreholes
(Ref: Biogenie dwg 'HAUXTON_101-1')
-  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



Rev.	Description	Revised By	Date
	FIRST ISSUE		07-10-10



■ Bristol Head Office: Tel: 01275 397600
 Fax: 01275 397601
 □ Sheffield Office: Tel: 01246 813289
 Fax: 01246 812983
 □ Hertford Office: Tel: 01992 535757
 Fax: 01992 535858
 □ Manchester Office: Tel: 01614 372708
 Fax: 01614 376300
 email: info@vertasefl.com
 www.vertasefl.com

Site Address: Bayer Site, Hauxton, Cambridge
 Rev:

Title: Ground Water Contours 30-09-10		
Client: Harrow Estates		
Drawn: MRG	Checked: MA	Approved: MA
Dwg: D907_108	Contract: 907 BR1	Scale: 1:1000

Appendix H
Waste Water Treatment Plant Discharge Analysis



Scientific Analysis Laboratories

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: 211356-1

Date of Report: 09-Sep-2010

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

Customer Contact: The Project Management

Customer Job Reference: 907BRI WWTW
Customer Purchase Order: 907BRI WWTW
Date Job Received at SAL: 02-Sep-2010
Date Analysis Started: 03-Sep-2010
Date Analysis Completed: 09-Sep-2010

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: 211356						
Customer Reference: 907BRI WWTW						
Water		Analysed as Water				
Miscellaneous						
SAL Reference			211356 001		211356 002	
Customer Sample Reference			WWTW PRIMARY B		WWTW DISCHARGE	
Date Sampled			26-AUG-2010		26-AUG-2010	
Determinand	Method	Test Sample	LOD	Units		
Ammoniacal nitrogen	T4	AR	50	µg/l	80	<50
Biochemical Oxygen Demand	T7	AR	3000	µg/l	6400	5000
pH	T7	AR			8.1	8.1

SAL Reference: 211356						
Customer Reference: 907BRI WWTW						
Water		Analysed as Water				
Suite A						
SAL Reference			211356 001		211356 002	
Customer Sample Reference			WWTW PRIMARY B		WWTW DISCHARGE	
Date Sampled			26-AUG-2010		26-AUG-2010	
Determinand	Method	Test Sample	LOD	Units		
Atrazine	T16	AR	0.01	µg/l	<0.01	<0.01
Trietazine	T16	AR	0.01	µg/l	<0.01	<0.01

SAL Reference: 211356						
Customer Reference: 907BRI WWTW						
Water		Analysed as Water				
Suite B						
SAL Reference			211356 001		211356 002	
Customer Sample Reference			WWTW PRIMARY B		WWTW DISCHARGE	
Date Sampled			26-AUG-2010		26-AUG-2010	
Determinand	Method	Test Sample	LOD	Units		
Benazolin	T16	AR	0.1	µg/l	<0.1	<0.1
2,3,6-TCB	T16	AR	0.1	µg/l	4.4	<0.1

SAL Reference: 211356						
Customer Reference: 907BRI WWTW						
Water		Analysed as Water				
Suite C						
SAL Reference			211356 001		211356 002	
Customer Sample Reference			WWTW PRIMARY B		WWTW DISCHARGE	
Date Sampled			26-AUG-2010		26-AUG-2010	
Determinand	Method	Test Sample	LOD	Units		
Bromide	T253	AR	100	µg/l	2800	2600
Chloride	T253	AR	200	µg/l	180000	180000
Sulphate ion	T253	AR	100	µg/l	280000	280000
Suspended Solids (Total)	T2	AR	10000	µg/l	<10000	<10000

SAL Reference: 211356						
Customer Reference: 907BRI WWTW						
Water Suite D		Analysed as Water				
SAL Reference			211356 001		211356 002	
Customer Sample Reference			WWTW PRIMARY B		WWTW DISCHARGE	
Date Sampled			26-AUG-2010		26-AUG-2010	
Determinand	Method	Test Sample	LOD	Units		
Dicamba	T16	AR	0.1	µg/l	<0.1	<0.1
Hempa	T16	AR	0.1	µg/l	18	2.9
Schradan	T16	AR	0.1	µg/l	4.2	<0.1
Simazine	T16	AR	0.01	µg/l	<0.01	<0.01

SAL Reference: 211356						
Customer Reference: 907BRI WWTW						
Water Suite E		Analysed as Water				
SAL Reference			211356 001		211356 002	
Customer Sample Reference			WWTW PRIMARY B		WWTW DISCHARGE	
Date Sampled			26-AUG-2010		26-AUG-2010	
Determinand	Method	Test Sample	LOD	Units		
TVC at 22°C after 3 days	T34	AR	10	cfu/ml	> 10000	> 10000
TVC at 37°C after 2 days	T34	AR	10	cfu/ml	> 10000	> 10000

Index to symbols used in 211356-1

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

Method Index

Value	Description
T4	Colorimetry
T253	IC(EID299)
T2	Grav
T7	Probe
T16	GC/MS
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
Hempa	T16	AR	0.1	µg/l	N	001-002
Schradan	T16	AR	0.1	µg/l	N	001-002

Determinand	Method	Test Sample	LOD	Units	Symbol	SAL References
Simazine	T16	AR	0.01	µg/l	N	001-002
TVC at 22°C after 3 days	T34	AR	10	cfu/ml	SN	001-002
TVC at 37°C after 2 days	T34	AR	10	cfu/ml	SN	001-002



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
01/03/2010	17/03/2010	193447	Discharge Point	0.30	84.00	150.00	<10	<0.05	<3	8.4	<0.02	0.07	<0.01	0.07	<0.1	0.40	<0.1	<0.1	<0.1
30/03/2010	09/04/2010	195429	Discharge Point	0.40	110.00	180.00	<10	<0.05	<3	8.7	<0.01	<0.01	<0.01	0.00	<0.1	0.30	<0.1	0.40	<0.1
08/04/2010	13/04/2010	196139	T99 Circ	<1.0	110.00	190.00	<10	<0.05	<3	8.0	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	2.90	0.40
10/04/2010	19/04/2010	196379	T100 Circ	<1.0	110.00	190.00	<10	0.05	<3	7.9	<0.01	0.01	<0.01	0.01	<0.1	<0.1	<0.1	0.90	0.30
12/04/2010	21/04/2010	196517	T100 Circ	<1.0	1100.00	200.00	<10	<0.05	<3	8.2	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	1.50	<0.1
28/04/2010	19/05/2010	199291	Discharge Point	<1.0	130.00	200.00	<10	<0.05	<3	8.1	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	5.10	1.50
07/05/2010	17/05/2010	199176	T99 Discharge	<1.0	110.00	200.00	<10	<0.05	6.60	8.2	<0.01	<0.01	<0.01	0.00	<0.2	3.00	<0.2	3.30	0.60
18/05/2010	01/06/2010	200382	Discharge Point	<1.0	180.00	280.00	<10	0.09	<3	8.0	<0.01	0.01	<0.01	0.01	0.60	5.20	0.20	6.30	3.80
28/05/2010	17/06/2010	201487	Discharge Point	<1.0	130.00	210.00	<10	<0.05	<3	8.1	<0.01	<0.01	<0.01	0.00	<0.1	1.30	<0.1	4.30	1.10
15/06/2010	28/06/2010	203351	WTW Discharge	2.7	240.00	320.00	<10	0.05	<3	8.1	<0.01	0.02	<0.01	0.02	<0.1	2.40	0.2	4.10	1.00
01/07/2010	19/07/2010	205613	WWTW Discharge	3.3	290.00	370.00	13	0.07	<3	8.1	<0.01	<0.01	<0.01	0.00	<0.1	0.40	<0.1	<0.1	<0.1
05/08/2010	16/08/2010	208693	WWTW Discharge	<1.0	160.00	300.00	<10	<0.05	<3	8.0	0.02	0.09	0.02	0.13	<0.5	0.40	<0.1	<0.1	<0.1
19/08/2010	26/08/2010	209961	WWTW Discharge	<1.0	160.00	260.00	<10	<0.05	<3	7.7	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	<0.1	<0.1
01/09/2010	09/09/2010	211356	WWTW Discharge	2.6	180.00	280.00	<10	<0.05	5	8.1	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	2.9	<0.1
16/09/2010	29/09/2010	212901	WWTW Discharge	<1.0	86.00	170.00	<10	0.08	<3	7.9	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	24	3.5
24/09/2010	04/10/2010	213745	WWTW Discharge	<1.0	160.00	340.00	35.00	<0.05	<3	8.0	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	24	0.6



Scientific Analysis Laboratories

Certificate of Analysis

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Hadfield House, Hadfield Street, Manchester M16 9FE

Report Number: 212901-1

Date of Report: 29-Sep-2010

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: 17-Sep-2010
Date Analysis Started: 17-Sep-2010
Date Analysis Completed: 29-Sep-2010

The results reported relate to samples received in the laboratory
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Report checked
and authorised by :
Amelia McVennon
Project Manager

Issued by :
Amelia McVennon
Project Manager

SAL Reference: 212901 Customer Reference: 907 BRI						
Water Analysed as Water New Group						
SAL Reference			212901 001		212901 002	
Customer Sample Reference			WWTW DISCHARGE		WWTW PRIMARY B	
Date Sampled			10-SEP-2010		10-SEP-2010	
Determinand	Method	Test Sample	LOD	Units		
Sample Disposal	T41	AR			-	-

SAL Reference: 212901 Customer Reference: 907 BRI						
Water Analysed as Water Miscellaneous						
SAL Reference			212901 001		212901 002	
Customer Sample Reference			WWTW DISCHARGE		WWTW PRIMARY B	
Date Sampled			10-SEP-2010		10-SEP-2010	
Determinand	Method	Test Sample	LOD	Units		
Ammoniacal nitrogen	T4	AR	50	µg/l	80	50
Biochemical Oxygen Demand	T7	AR	3000	µg/l	<3000	<3000
pH	T7	AR			7.9	8.1

SAL Reference: 212901 Customer Reference: 907 BRI						
Water Analysed as Water Suite A						
SAL Reference			212901 001		212901 002	
Customer Sample Reference			WWTW DISCHARGE		WWTW PRIMARY B	
Date Sampled			10-SEP-2010		10-SEP-2010	
Determinand	Method	Test Sample	LOD	Units		
Atrazine	T16	AR	0.01	µg/l	<0.01	<0.01
Trietazine	T16	AR	0.01	µg/l	<0.01	0.33

SAL Reference: 212901 Customer Reference: 907 BRI						
Water Analysed as Water Suite B						
SAL Reference			212901 001		212901 002	
Customer Sample Reference			WWTW DISCHARGE		WWTW PRIMARY B	
Date Sampled			10-SEP-2010		10-SEP-2010	
Determinand	Method	Test Sample	LOD	Units		
Benazolin	T16	AR	0.1	µg/l	<0.1	1.1
2,3,6-TCB	T16	AR	0.1	µg/l	<0.1	33

SAL Reference: 212901 Customer Reference: 907 BRI						
Water Analysed as Water Suite C						
SAL Reference			212901 001		212901 002	
Customer Sample Reference			WWTW DISCHARGE		WWTW PRIMARY B	
Date Sampled			10-SEP-2010		10-SEP-2010	
Determinand	Method	Test Sample	LOD	Units		
Bromide	T253	AR	100	µg/l	⁽⁹⁾ <1000	⁽⁹⁾ <1000
Chloride	T253	AR	200	µg/l	86000	85000
Sulphate ion	T253	AR	100	µg/l	170000	160000
Suspended Solids (Total)	T2	AR	10000	µg/l	<10000	<10000

SAL Reference: 212901						
Customer Reference: 907 BRI						
Water		Analysed as Water				
Suite D						
SAL Reference			212901 001		212901 002	
Customer Sample Reference			WWTW DISCHARGE		WWTW PRIMARY B	
Date Sampled			10-SEP-2010		10-SEP-2010	
Determinand	Method	Test Sample	LOD	Units		
Dicamba	T16	AR	0.1	µg/l	<0.1	0.4
Hempa	T16	AR	0.1	µg/l	24	22
Schradan	T16	AR	0.1	µg/l	3.5	20
Simazine	T16	AR	0.01	µg/l	<0.01	<0.01

SAL Reference: 212901						
Customer Reference: 907 BRI						
Water		Analysed as Water				
Suite E						
SAL Reference			212901 001		212901 002	
Customer Sample Reference			WWTW DISCHARGE		WWTW PRIMARY B	
Date Sampled			10-SEP-2010		10-SEP-2010	
Determinand	Method	Test Sample	LOD	Units		
TVC at 22°C after 3 days	T34	AR	10	cfu/ml	> 10000	3500
TVC at 37°C after 2 days	T34	AR	10	cfu/ml	6300	3100

Index to symbols used in 212901-1

Value	Description
AR	As Received
9	LOD raised due to dilution of sample
S	Analysis was subcontracted
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

Method Index

Value	Description
T34	Micro
T7	Probe
T16	GC/MS
T41	N/A
T4	Colorimetry
T253	IC(EID299)
T2	Grav

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	U	001-002
Chloride	T253	AR	200	µg/l	U	001-002
Sulphate ion	T253	AR	100	µg/l	U	001-002
Suspended Solids (Total)	T2	AR	10000	µg/l	N	001-002
Dicamba	T16	AR	0.1	µg/l	N	001-002
Hempa	T16	AR	0.1	µg/l	N	001-002
Schradan	T16	AR	0.1	µg/l	N	001-002

Determinand	Method	Test Sample	LOD	Units	Symbol	SAL References
Simazine	T16	AR	0.01	µg/l	N	001-002
TVC at 22°C after 3 days	T34	AR	10	cfu/ml	SN	001-002
TVC at 37°C after 2 days	T34	AR	10	cfu/ml	SN	001-002
Sample Disposal	T41	AR			N	001-002





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Certificate of Analysis

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Wales (No 2514788) whose address is at
Hadfield House, Hadfield Street, Manchester M16 9FE

Report Number: 213745-1

Date of Report: 04-Oct-2010

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

Customer Contact: The Project Management

Customer Job Reference: 907BRI WWTW
Date Job Received at SAL: 27-Sep-2010
Date Analysis Started: 27-Sep-2010
Date Analysis Completed: 04-Oct-2010

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: 213745 Customer Reference: 907BRI WWTW Water Analysed as Water Miscellaneous						
SAL Reference			213745 001	213745 002		
Customer Sample Reference			WWTW Discharge	WWTW Primary B		
Date Sampled			23-SEP-2010	23-SEP-2010		
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	8.1

SAL Reference: 213745 Customer Reference: 907BRI WWTW Water Analysed as Water Suite A						
SAL Reference			213745 001	213745 002		
Customer Sample Reference			WWTW Discharge	WWTW Primary B		
Date Sampled			23-SEP-2010	23-SEP-2010		
Determinand	Method	Test Sample	LOD	Units		
Atrazine	T16	AR	0.01	µg/l	<0.01	<0.01
Trietazine	T16	AR	0.01	µg/l	<0.01	0.30

SAL Reference: 213745 Customer Reference: 907BRI WWTW Water Analysed as Water Suite B						
SAL Reference			213745 001	213745 002		
Customer Sample Reference			WWTW Discharge	WWTW Primary B		
Date Sampled			23-SEP-2010	23-SEP-2010		
Determinand	Method	Test Sample	LOD	Units		
Benazolin	T16	AR	0.1	µg/l	<0.1	2.7
2,3,6-TCB	T16	AR	0.1	µg/l	<0.1	26

SAL Reference: 213745 Customer Reference: 907BRI WWTW Water Analysed as Water Suite C						
SAL Reference			213745 001	213745 002		
Customer Sample Reference			WWTW Discharge	WWTW Primary B		
Date Sampled			23-SEP-2010	23-SEP-2010		
Determinand	Method	Test Sample	LOD	Units		
Bromide	T253	AR	100	µg/l	⁽⁹⁾ <1000	⁽⁹⁾ <1000
Chloride	T253	AR	200	µg/l	160000	160000
Sulphate ion	T253	AR	100	µg/l	340000	340000
Suspended Solids (Total)	T2	AR	10000	µg/l	35000	<10000

SAL Reference: 213745						
Customer Reference: 907BRI WWTW						
Water		Analysed as Water				
Suite D						
SAL Reference		213745 001		213745 002		
Customer Sample Reference		WWTW Discharge		WWTW Primary B		
Date Sampled		23-SEP-2010		23-SEP-2010		
Determinand	Method	Test Sample	LOD	Units		
Dicamba	T16	AR	0.1	µg/l	<0.1	0.7
Hempa	T16	AR	0.1	µg/l	24	29
Schradan	T16	AR	0.1	µg/l	0.6	17
Simazine	T16	AR	0.01	µg/l	<0.01	<0.01

SAL Reference: 213745						
Customer Reference: 907BRI WWTW						
Water		Analysed as Water				
Suite E						
SAL Reference		213745 001		213745 002		
Customer Sample Reference		WWTW Discharge		WWTW Primary B		
Date Sampled		23-SEP-2010		23-SEP-2010		
Determinand	Method	Test Sample	LOD	Units		
TVC at 22°C after 3 days	T34	AR	10	cfu/ml	6600	34
TVC at 37°C after 2 days	T34	AR	10	cfu/ml	290	110

Index to symbols used in 213745-1

Value	Description
AR	As Received
9	LOD raised due to dilution of sample
W	Analysis was performed at another SAL laboratory
S	Analysis was subcontracted
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

Method Index

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

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
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

Determinand	Method	Test Sample	LOD	Units	Symbol	SAL References
TVC at 22°C after 3 days	T34	AR	10	cfu/ml	SN	001-002
TVC at 37°C after 2 days	T34	AR	10	cfu/ml	SN	001-002



Appendix I
Soil Characterisation Results Summary

Former Bayer Cropscience Site

Contaminants Not Previously Identified

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), iso-octyl 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.

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07.05.2010	24.05.2010 (09.06.2010)	L8	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
			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		
			2,4-Dichloro-o-cresol	29,000	

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13.05.2010	24.05.2010 (09.06.2010)	I9	2,3,6-Trichlorotoluene	47,000	Potential herbicide degradation product
			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	
			2-methylnaphthalene	3,900,000	Encountered and assessed during site investigation, not a priority contaminant
			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.
			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

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Contaminants Not Previously Identified

21.07.2010	22.07.2010	J10	1,2,4-Trichlorobenzene	28,000	Encountered and assessed during site investigation, not a priority contaminant	
			Trichlorobenzene	32,000		
			2-Chlorotoluene	60,000		
			Trichloro toluene isomer	48,000		Same as I9
			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	99,000	Same as J10, H10	

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Contaminants Not Previously Identified

			2-Chlorotoluene	12,000	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	18,000	Same as H10, K13
			2-Chlorotoluene	13,000	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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Contaminants Not Previously Identified

			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

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Contaminants Not Previously Identified

			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 investigation, not a priority contaminant
	1,2,4-Trimethylbenzene		10000000		
1,2,3-Trimethylbenzene	3100000				