



Environmental Monitoring Report

Reporting Period

04/07/2011-29/07/2011

Former Bayer Crop Science Site
Hauxton
Cambridgeshire

10th August 2011

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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 4th of July 2011, until the 31st of July 2011.

1.2. The site

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

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

1.3. Remediation Brief and Philosophy

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

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

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

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

2.0 Monthly Progress

Week 69. Week Commencing 4th July 2011

Excavation continued through grid square J13, with contaminated soils creating new treatment beds to the centre of the site. Relocating of existing treatment beds and stockpiles from the south of the site was undertaken to create space for excavation and validation. Restoration of remediated soils progressed in the centre of the site in grid squares H14, H15, I14, I15, J14 and J15. Turning of treatment beds was undertaken to assist in the biodegradation of the contaminants and reduce the moisture content of the material prior to restoration. Treatment beds located in the high bay warehouse were relocated prior to its demolition, the beds being relocated were covered to prevent any odour generation while they complete their treatment programme. The demolition of the High bay warehouse commenced on 6th of July.

Week 70. Week Commencing 11th July 2011

Restoration of remediated soils continued in the centre of the site. No excavation was undertaken due to awaiting validation testing. Turning of treatment beds was undertaken to promote biological degradation and dry the material in preparation for reinstatement. The demolition of the High bay warehouse structure continued.

Week 71. Week Commencing 18th July 2011

Excavation was undertaken in H10 to H12 and I10 to I12 with contaminated soils being created into treatment beds in the centre of the site. Concrete was broken out from the southern limb bentonite wall, with hard materials being stockpiled to await crushing and future reuse on site. Later in the week excavation of impacted Marl material was undertaken in grid squares H7, G8 through to G11, this material was formed into treatment beds to the southwest of the site. Limited restoration undertaken due to wet weather conditions though the week affecting the compaction. Materials suitable for restoration were hauled to the north of the site and stockpiled in preparation for restoration. Turning of treatment beds was undertaken to promote biological degradation and dry the material in preparation for reinstatement. A temporary boundary fence was erected along the eastern bank of the Riddy Brook in preparation of the Bentonite wall removal works.

Week 72. Week Commencing 25th June 2011

Excavation from grid square G11 continued to G13 with impacted soils being created into treatment beds in the southwest of the site. Restoration using treated soils continued in the centre of the site. A number of stockpiles and treatment beds were relocated from the south eastern corner to the west of the site to allow for further excavation and validation in the south east corner of the site. Turning of treatment beds continued to promote biological degradation and dry the material in preparation for reinstatement. The demolition of the high bay warehouse was completed and the demolition plant was demobilised.

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 finding from the monitoring undertaken by Vertase FLI Site Engineers.

3.1. *Odour and VOC Emissions*

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

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

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

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

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

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

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

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

The results for the long term passive VOC monitoring carried out between 09/06/2011 and 07/07/2011 are reported in appendix C. The analysis undertaken for this monitoring period indicates that the majority of the VOC's detected are around the baseline, except for Tetrachloroethene and Naphthalene which is on occasion slightly raised above the baseline values but are well below the levels considered to be within acceptable limits for published criteria.

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

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

3.2. Dust Fibre and Particulate Emission

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

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

Dust particle measurements at each monitoring location have varied, with the higher dust readings being generally at the locations adjacent to the heavily trafficked Cambridge Road (A10). The average Total Suspended Particulates (TSP) reading around the site is $92.82\mu\text{g}/\text{m}^3$, the average PM10 dust reading around the site is $45.50\mu\text{g}/\text{m}^3$. 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 27/06/2011 to 11/07/2011 (4 locations monitored only due to 2# damaged monitoring stations) recorded a maximum dust deposition rate was 2.79%EAC at the south monitoring location. All other locations had a maximum dust deposition rate of 2.29%EAC, or less.

Dust monitoring undertaken from the 11/07/2011 to 25/07/2011 (5 locations monitored only due to 1# damaged in transit) recorded a maximum dust deposition rate was 2.79%EAC at the south monitoring location. All other locations had a maximum dust deposition rate of 0.64%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 65dB. Exceedance's of the 80dB threshold (stipulated in the Environmental Permit deployment document) have been recorded during the monitoring period, however traffic along the A10 has been identified as the source of the slightly elevated noise levels. Data is recorded in the environmental monitoring data spreadsheet, Appendix B.

3.5. Litter

All litter occurrences are removed from within the site, and off site around the boundary fence, and disposed of appropriately. Litter is generally low off site, and is well managed on site, by all

site personnel. All recordings of the presence of litter are noted in the Environmental Monitoring Data spreadsheet in Appendix B.

4.0 Surface and Ground Water Condition

4.1. Surface Water Monitoring

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

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

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

4.2. Surface Water Sampling and Analysis

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

4.3. Groundwater Level Monitoring

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

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

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

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

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

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

The graph constructed (Appendix G) illustrates that there have been very little changes to groundwater levels within the boreholes across the site 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.

4.4. Groundwater Sampling and Analysis

Groundwater samples from 11 monitoring locations on site are taken on a monthly basis. The results for samples taken on 27th July 2011 are pending and will be presented in a supplemental report.

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 29/07/2011, eighty six characterisation samples have been taken by Vertase FLI in partnership with Atkins to assess the contamination type and concentrations prior to remediation of the materials. Thirty eight characterisation samples analysed contained a total of twenty five compounds / potential contaminants that had not been previously identified.

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

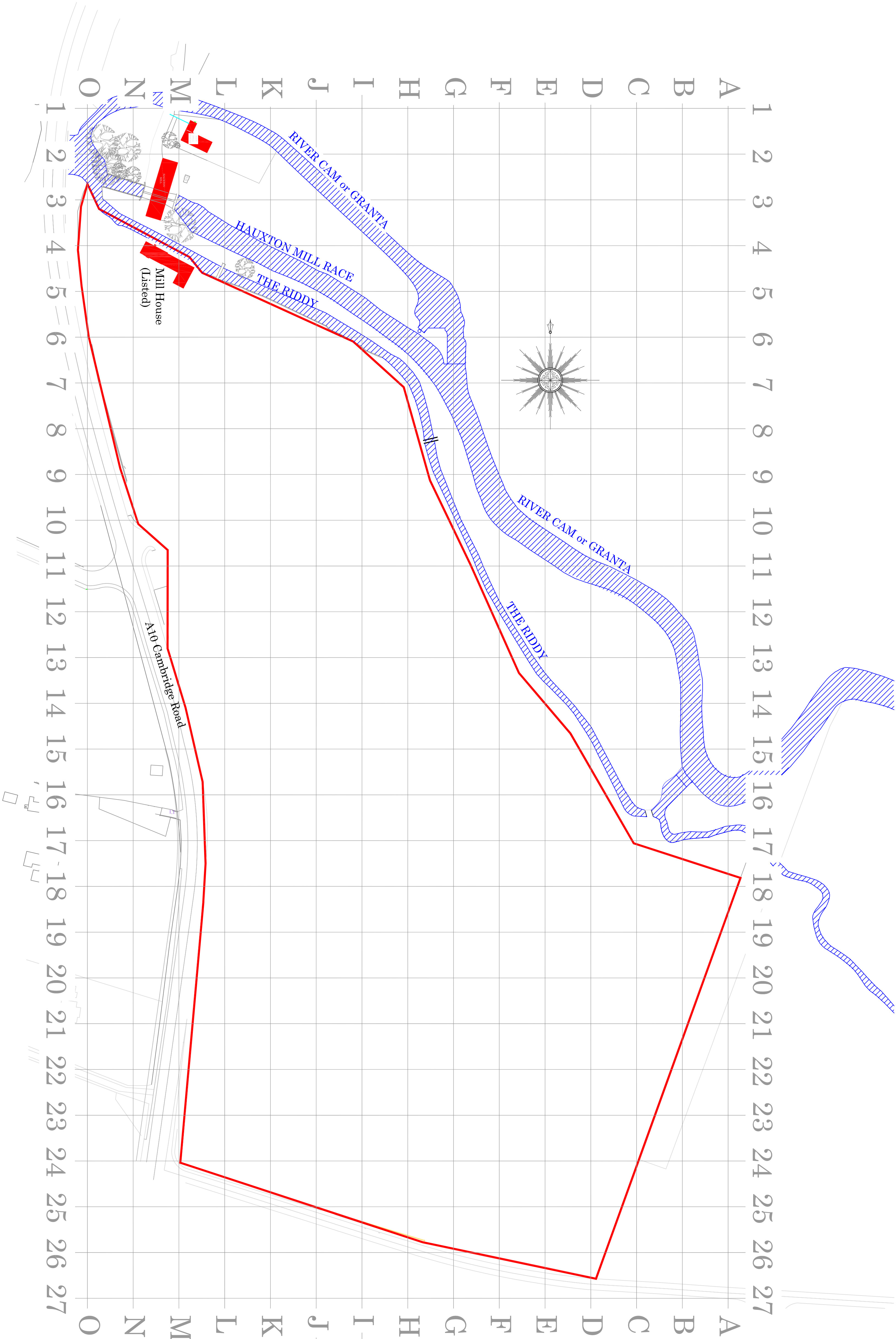
The remediation project consultants Atkins continuously review the soil characterisation analysis and report previously unidentified contaminants in accordance with condition 9, Planning Condition Document ref:S/2307/06/f Issued 10/02/2010.

Appendix A

Drawings

Legend

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



Rev.	Description	Revised By	Date
	FIRST ISSUE		21 April 2008

■ Bristol Head Office:

□ Sheffield Office:

□ Hertford Office:

□ Manchester Office:

Tel: 01275 397600

Fax: 01275 397601

Tel: 01246 813269

Fax: 01246 812669

Tel: 01430 812592

Fax: 01982 558556

Tel: 01614 372708

Fax: 01614 376300

email: info@vertasefli.co.uk

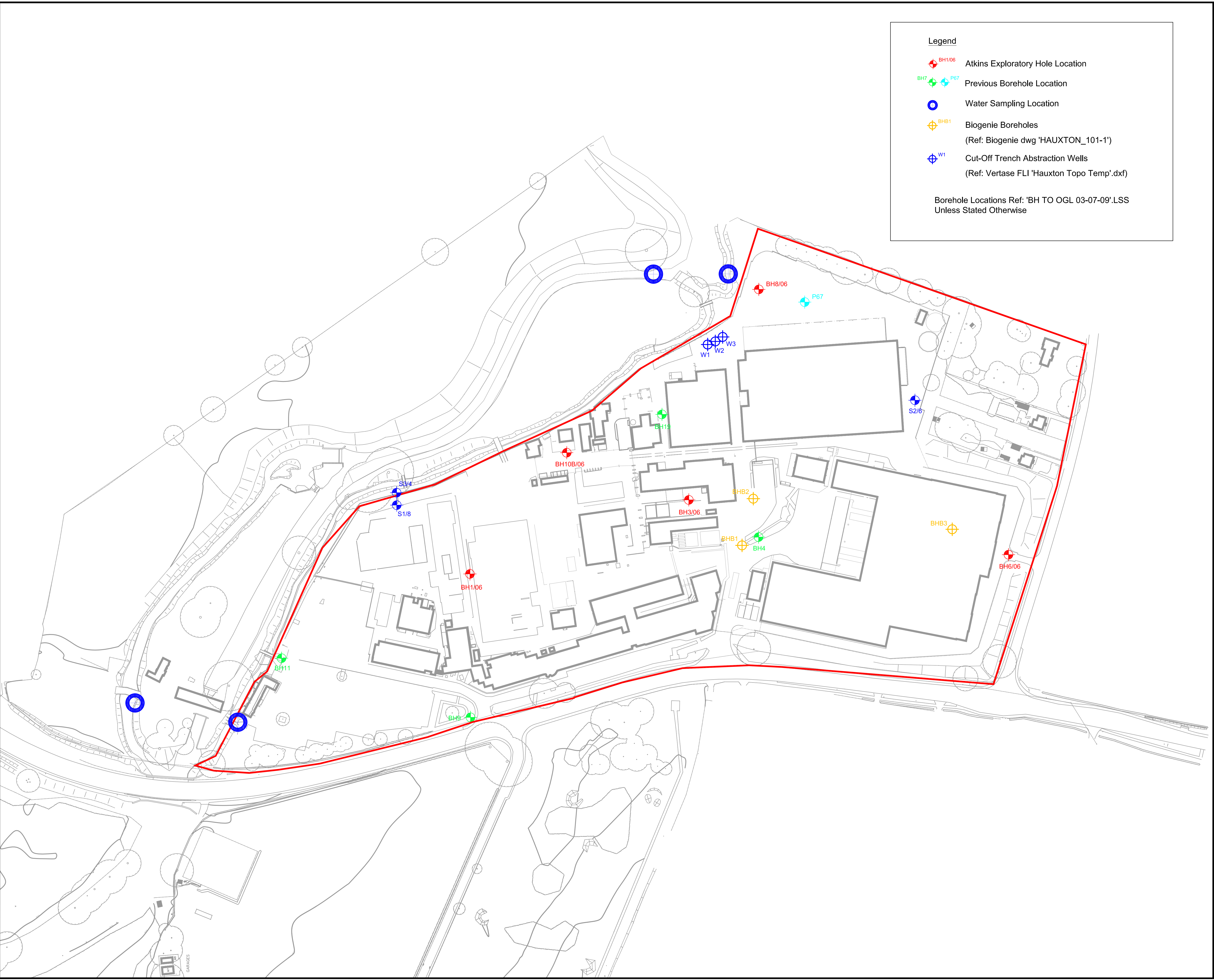
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Site Address:	Refer:
Bayer Site	
Hauxton	
Cambridge	

Title: Blank Site Plan with Grid

Client: Harrow Estates

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



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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☒ Bristol Head Office:

Tel: 01275 397600
Fax: 01275 397601

☐ Sheffield Office:

Tel: 01246 613289
Fax: 01246 612963

☐ Hertford Office:

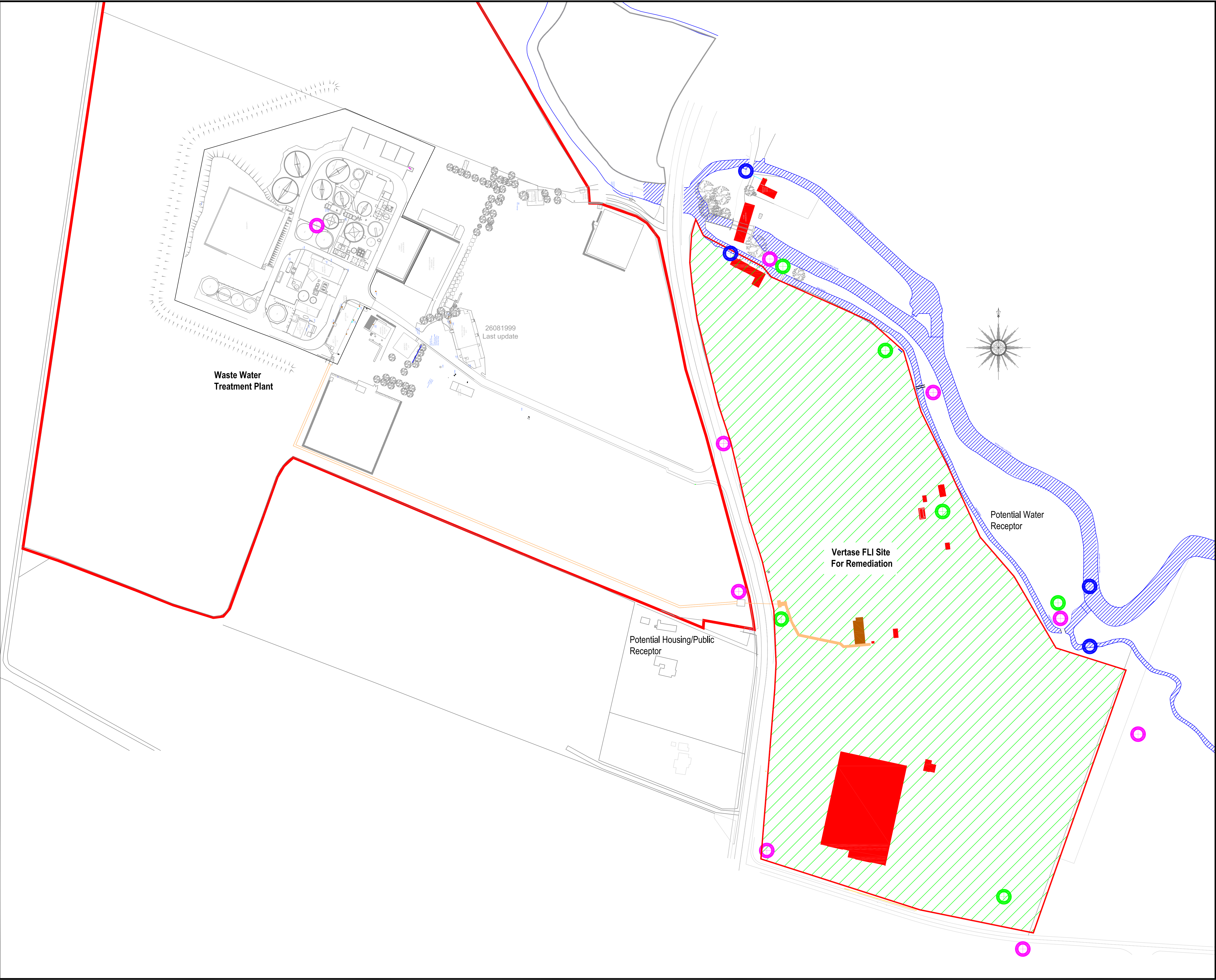
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Site Address: Bayer Site Hauxton Cambridge		Rev: E
Title: Retained Boreholes for Monitoring & Reference		
Client: Harrow Estates		
Drawn: JWH	Checked: MA	Approved: MA
Dwg:D907_31	Contract: 907BRI	Scale: 1:1000



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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Vertase F.L.I.

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□ Sheffield Office: Tel: 01246 813289 Fax: 01246 812963

□ Hertford Office: Tel: 01992 536757 Fax: 01992 535858

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email: info@vertasefli.co.uk
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Site Address:
Bayer Site
Hauxton
Cambridge

Rev:
C

Title: Environmental Monitoring Plan

Client: Harrow Estates

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

Appendix B

Environmental Monitoring Data

[illegible]

Appendix C

Long term Passive VOC Monitoring

LABORATORY ANALYSIS REPORT

REPORT NUMBER	GCMS 4835
CUSTOMER	Vertase FLI Ltd
GRADKO LAB REFERENCE	GMSF 1036-1045
DATE SAMPLES RECEIVED	18.07.11
DESPATCH REF.NUMBER	SOR006001
JOB NUMBER	907BRI/5302
BOOKING IN REF.	E 3676

**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 02326
Exposure Time(mins)	40320
Sample ID	West

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Tetrachloroethylene	173.68	2.15
Toluene	57.22	0.71
Benzamide, N,N-dimethyl-	45.04	0.56
Benzene, 1,2,3-trichloro-4-methyl-	41.88	0.52
Benzothiazole	22.00	0.27
Tridecane	20.52	0.25
Cyclohexane, isothiocyanato-	19.21	0.24
Naphthalene	18.64	0.23
Benzene, 1,2,4-trichloro-3-methyl-	15.70	0.19
Benzene, 1,2,4-trichloro-	14.84	0.18

Tube Number	GRA 02342
Exposure Time(mins)	40320
Sample ID	East

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Tetrachloroethylene	276.08	3.42
m/p-Xylene	152.41	1.89
Naphthalene	123.32	1.53
Benzene, 1,2,3-trichloro-4-methyl-	93.39	1.16

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

o-Xylene	59.55	0.74
Toluene	58.95	0.73
Benzene, 1,2,4-trichloro-3-methyl-	47.52	0.59
Ethylbenzene	41.41	0.51
Benzene, 1,2,4-trimethyl-	32.89	0.41
Benzene, 1,2,4-trichloro-	32.86	0.41

Tube Number GRA 05901
Exposure Time(mins) 40320
Sample ID North West

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Tetrachloroethylene	214.79	2.66
Toluene	43.99	0.55
Benzene, 1,2,3-trichloro-4-methyl-	36.52	0.45
Benzamide, N,N-dimethyl-	31.75	0.39
Bis(2-chloroethyl) ether	20.35	0.25
Benzothiazole	19.93	0.25
m/p-Xylene	16.06	0.20
Phenol	15.01	0.19
Benzene, 1,2,4-trichloro-3-methyl-	13.75	0.17
o-Xylene	12.39	0.15

Tube Number GRA 04578
Exposure Time(mins) 40320
Sample ID South West

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Tetrachloroethylene	179.79	2.23
Benzene, 1,2,3-trichloro-4-methyl-	46.82	0.58
Benzothiazole	34.58	0.43
Toluene	28.91	0.36
Benzene, 1,2,4-trichloro-3-methyl-	25.90	0.32
Benzene, 1,4-dichloro-2-methyl-	18.56	0.23
Tridecane	15.89	0.20
Naphthalene	15.27	0.19
Bis(2-chloroethyl) ether	15.21	0.19
Benzene, 1,2,4-trichloro-	12.43	0.15

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

St. Martins House, 77 Wales Street Winchester, Hampshire SO23 0RH
tel.: 01962 860331 fax: 01962 841339 e-mail: diffusion@gradko.co.uk

LABORATORY ANALYSIS REPORT

Tube Number GRA 05088
Exposure Time(mins) 40320
Sample ID North East

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Tetrachloroethylene	223.63	2.77
Benzene, 1,2,3-trichloro-4-methyl-	78.45	0.97
Toluene	41.31	0.51
Benzene, 1,2,4-trichloro-3-methyl-	36.48	0.45
Naphthalene	34.77	0.43
Benzene, 1,4-dichloro-	33.99	0.42
m/p-Xylene	31.72	0.39
Dodecane	25.41	0.32
Benzamide, N,N-dimethyl-	24.96	0.31
Benzothiazole	24.94	0.31

Tube Number GRA 04671
Exposure Time(mins) 40320
Sample ID South

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Tetrachloroethylene	66.98	0.83
Benzothiazole	35.66	0.44
Toluene	33.71	0.42
Benzene, 1,2,3-trichloro-4-methyl-	21.97	0.27
Formamide, N,N-dimethyl-	11.29	0.14
Cyclohexane, isocyanato-	10.72	0.13
Naphthalene, 2-methyl-	10.45	0.13
Benzene	8.40	0.10
Phenol	7.91	0.10
m/p-Xylene	7.87	0.10

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.

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REPORT OFFICIALLY CHECKED

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

St. Martins House, 77 Wales Street Winchester, Hampshire SO23 0RH
tel.: 01962 860331 fax: 01962 841339 e-mail: diffusion@gradko.co.uk

LABORATORY ANALYSIS REPORT

Tube Number GRA 05603
Exposure Time(mins) 40320
Sample ID South East

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Tetrachloroethylene	211.44	2.62
Toluene	84.49	1.05
Benzene, 1,2,3-trichloro-4-methyl-	73.74	0.91
m/p-Xylene	41.79	0.52
Benzene, 1,2,4-trichloro-3-methyl-	38.27	0.47
Benzothiazole	36.24	0.45
Benzamide, N,N-dimethyl-	35.37	0.44
Bis(2-chloroethyl) ether	26.20	0.32
Naphthalene, 2,7-dimethyl-	24.83	0.31
Naphthalene	24.05	0.30

Tube Number GRA 03473
Exposure Time(mins) 40320
Sample ID Church Road

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Naphthalene	1079	13
Phenanthrene	151.30	1.88
Naphthalene, 2-methyl-	131.25	1.63
Acenaphthene	83.36	1.03
Naphthalene, 1-methyl-	79.28	0.98
Fluorene	49.21	0.61
Tetrachloroethylene	32.27	0.40
2-Benzothiophene	24.65	0.31
Toluene	24.40	0.30
Naphthalene, 2,6-dimethyl-	24.27	0.30

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

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Report Number GCMS4835

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

LABORATORY ANALYSIS REPORT

Tube Number GRA 02024
Exposure Time(mins) 40320
Sample ID Queen's Close

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Pentane, 3-methyl-	103.24	1.28
Pentane, 2-methyl-	95.55	1.18
Hexane	92.45	1.15
Cyclopentane, methyl-	79.49	0.99
Benzothiazole	34.37	0.43
Isopropyl Alcohol	34.00	0.42
Toluene	29.60	0.37
m/p-Xylene	29.43	0.36
Benzene	19.57	0.24
o-Xylene	19.50	0.24

Tube Number GRA 06231
Exposure Time(mins) 40320
Sample ID WWTW

Top 10 VOC'S

Compounds	ng on tube	ppb in air*
Benzothiazole	37.83	0.47
Pentane, 3-methyl-	26.53	0.33
Pentane, 2-methyl-	25.94	0.32
Tetrachloroethylene	24.81	0.31
Hexane	24.18	0.30
Toluene	21.77	0.27
Cyclopentane, methyl-	20.53	0.25
Benzamide, N,N-dimethyl-	19.26	0.24
m/p-Xylene	18.52	0.23
Naphthalene	16.41	0.20

Comments: Results greater than 1000ng are outside of our UKAS accredited calibration range.
Semi-quantitative results for ng on tube are calculated using toluene standards.

Analysts Name M.Angelova **Date of Analysis** 27.07.11
Date of Report 28.07.11

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

REPORT OFFICIALLY CHECKED

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

Appendix D

Directional Dust Monitoring

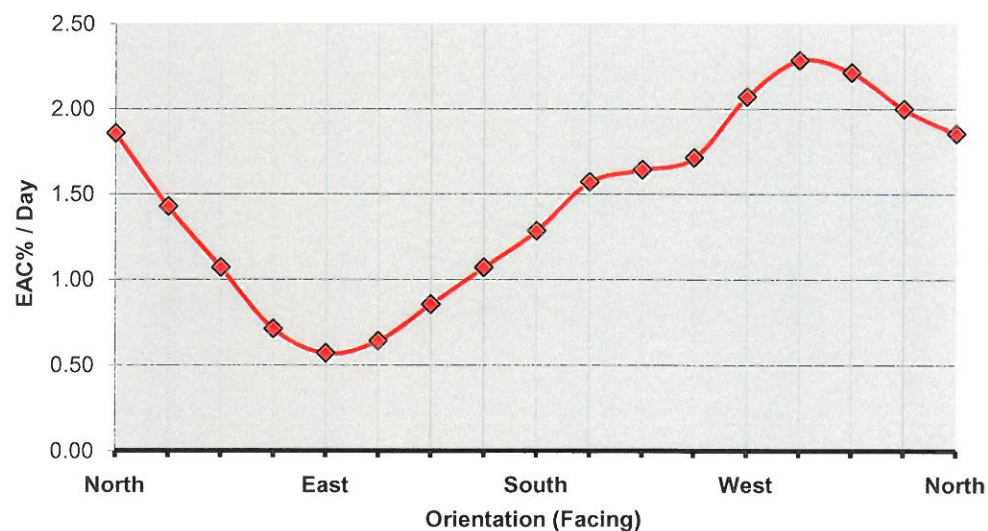
Gauge Number-East Location 907BRI

Sticky Pad Data

Date On 27/06/2011 Date Off 11/07/2011 Days = 14
Clean = 100

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	74	360	North	1.86
20	72	337		2.00
40	69	314		2.21
60	68	291		2.29
80	71	269	West	2.07
100	76	246		1.71
120	77	223		1.64
140	78	200		1.57
160	82	177	South	1.29
180	85	154		1.07
200	88	131		0.86
220	91	109		0.64
240	92	86	East	0.57
260	90	63		0.71
280	85	40		1.07
300	80	17		1.43
315	74	0	North	1.86

EAC% / Day vs Orientation



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

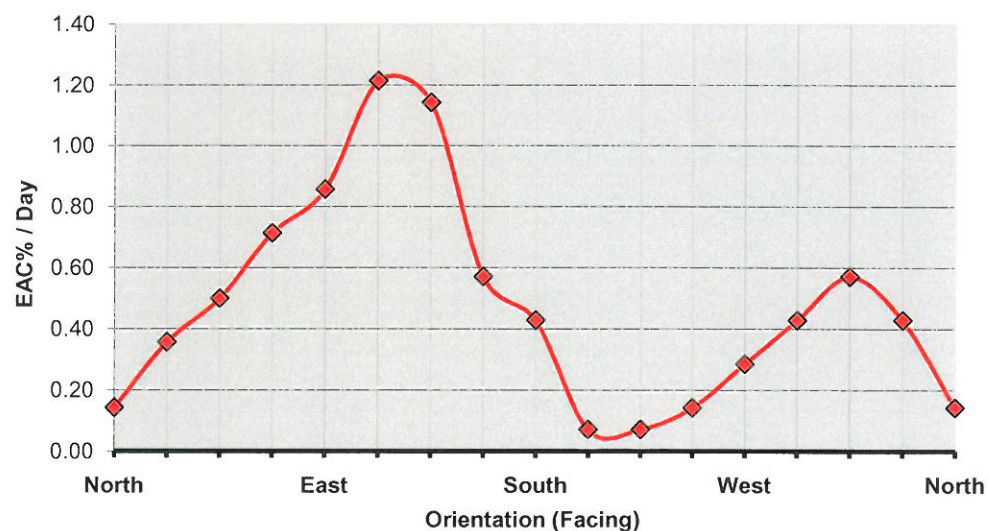
Gauge Number-NE1 Location 907BRI

Sticky Pad Data

Date On 27/06/2011 Date Off 11/07/2011 Days = 14
Clean = 100

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	98	360	North	0.14
20	94	337		0.43
40	92	314		0.57
60	94	291		0.43
80	96	269	West	0.29
100	98	246		0.14
120	99	223		0.07
140	99	200		0.07
160	94	177	South	0.43
180	92	154		0.57
200	84	131		1.14
220	83	109		1.21
240	88	86	East	0.86
260	90	63		0.71
280	93	40		0.50
300	95	17		0.36
315	98	0	North	0.14

EAC% / Day vs Orientation



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

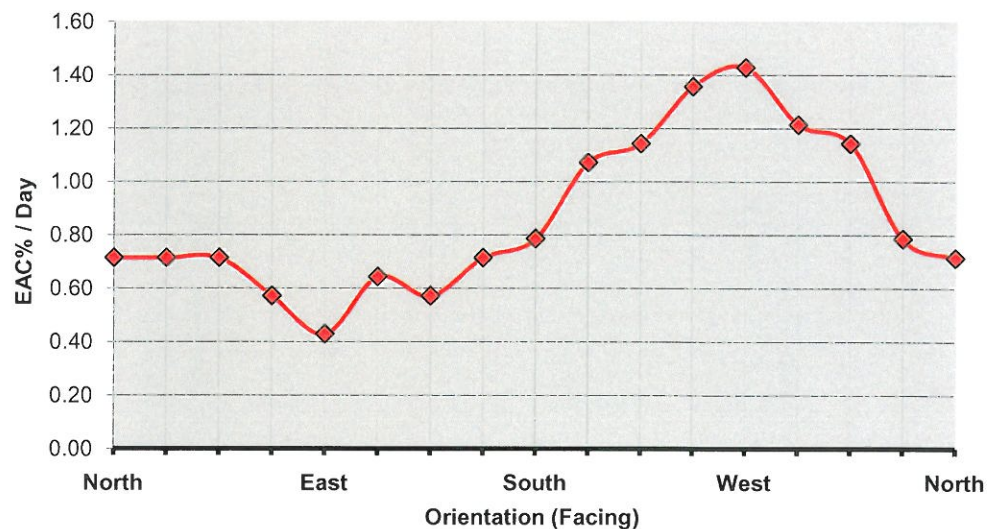
Gauge Number-NE2 Location 907BRI

Sticky Pad Data

Date On 27/06/2011 Date Off 11/07/2011 Days = 14
Clean = 100

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	90	360	North	0.71
20	89	337		0.79
40	84	314		1.14
60	83	291		1.21
80	80	269	West	1.43
100	81	246		1.36
120	84	223		1.14
140	85	200		1.07
160	89	177	South	0.79
180	90	154		0.71
200	92	131		0.57
220	91	109		0.64
240	94	86	East	0.43
260	92	63		0.57
280	90	40		0.71
300	90	17		0.71
315	90	0	North	0.71

EAC% / Day vs Orientation



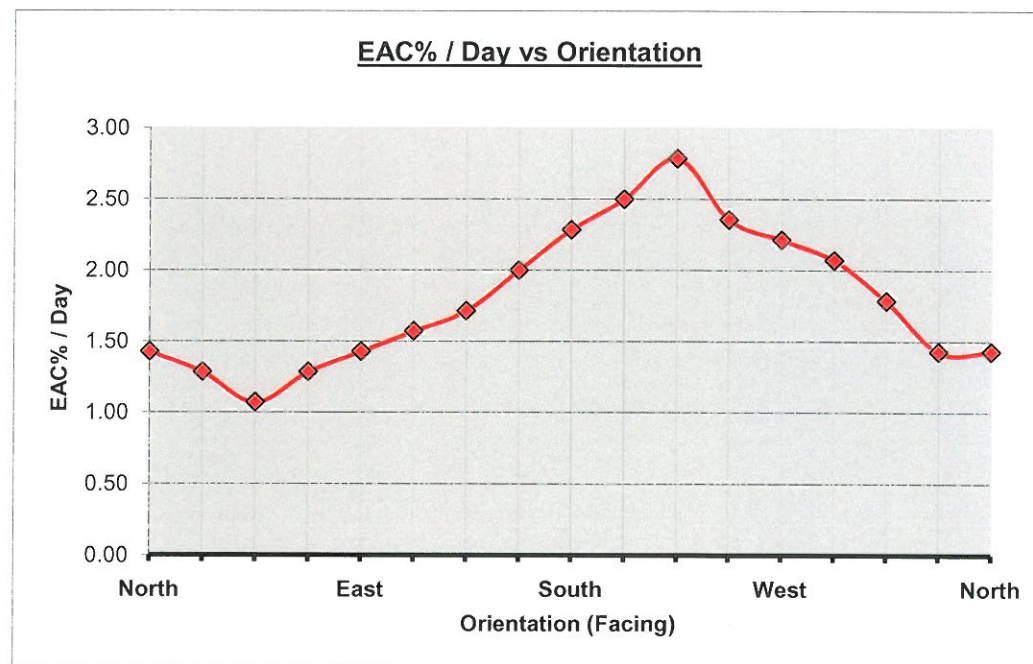
Note: Cells coloured red are inputs.
The rest are either constants or calculated values.
The calculation is based on taking readings at 20mm intervals along the sticky pad.

Gauge Number-South Location 907BRI

Sticky Pad Data

Date On 27/06/2011 Date Off 11/07/2011 Days = 14
Clean = 100

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	80	360	North	1.43
20	80	337		1.43
40	75	314		1.79
60	71	291		2.07
80	69	269	West	2.21
100	67	246		2.36
120	61	223		2.79
140	65	200		2.50
160	68	177	South	2.29
180	72	154		2.00
200	76	131		1.71
220	78	109		1.57
240	80	86	East	1.43
260	82	63		1.29
280	85	40		1.07
300	82	17		1.29
315	80	0	North	1.43



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

Gauge Number-North Location 907BRI

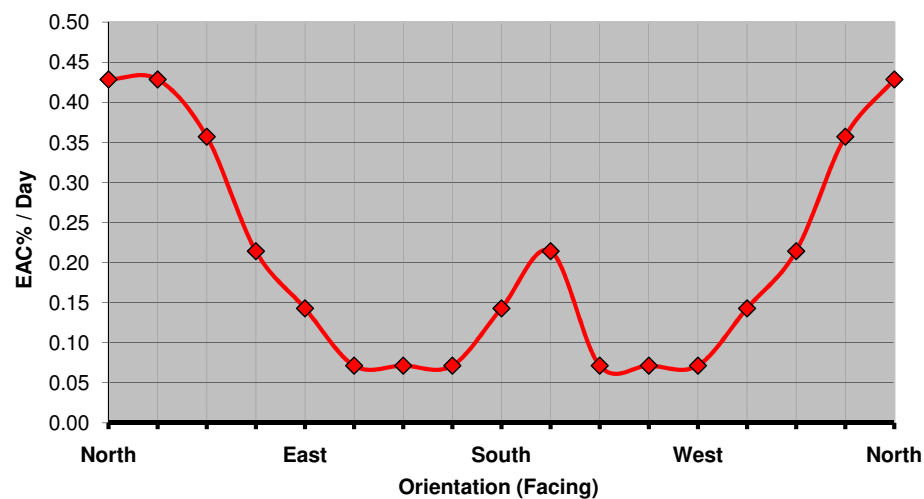
Sticky Pad Data

Date On 11/07/2011 Date Off 25/07/2011 Days = 14
Clean = 100

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	94	360	North	0.43
20	95	337		0.36
40	97	314		0.21
60	98	291		0.14
80	99	269	West	0.07
100	99	246		0.07
120	99	223		0.07
140	97	200		0.21
160	98	177	South	0.14
180	99	154		0.07
200	99	131		0.07
220	99	109		0.07
240	98	86	East	0.14
260	97	63		0.21
280	95	40		0.36
300	94	17		0.43
315	94	0	North	0.43

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

EAC% / Day vs Orientation

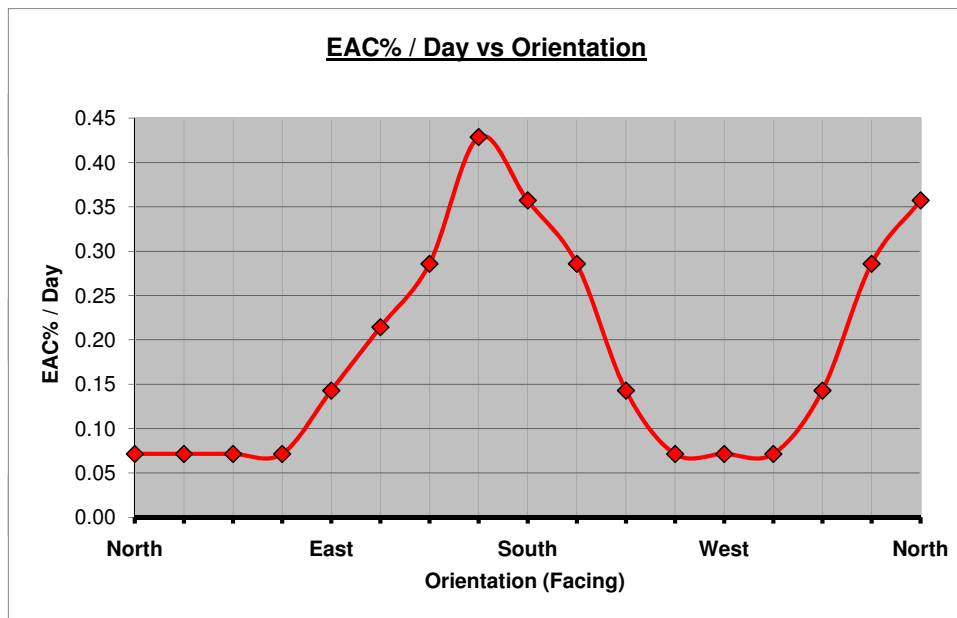


Gauge Number-East Location 907BRI

Sticky Pad Data

Date On **11/07/2011** Date Off **25/07/2011** Days = 14
Clean = 100

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	95	360	North	0.36
20	96	337		0.29
40	98	314		0.14
60	99	291		0.07
80	99	269	West	0.07
100	99	246		0.07
120	98	223		0.14
140	96	200		0.29
160	95	177	South	0.36
180	94	154		0.43
200	96	131		0.29
220	97	109		0.21
240	98	86	East	0.14
260	99	63		0.07
280	99	40		0.07
300	99	17		0.07
315	99	0	North	0.07



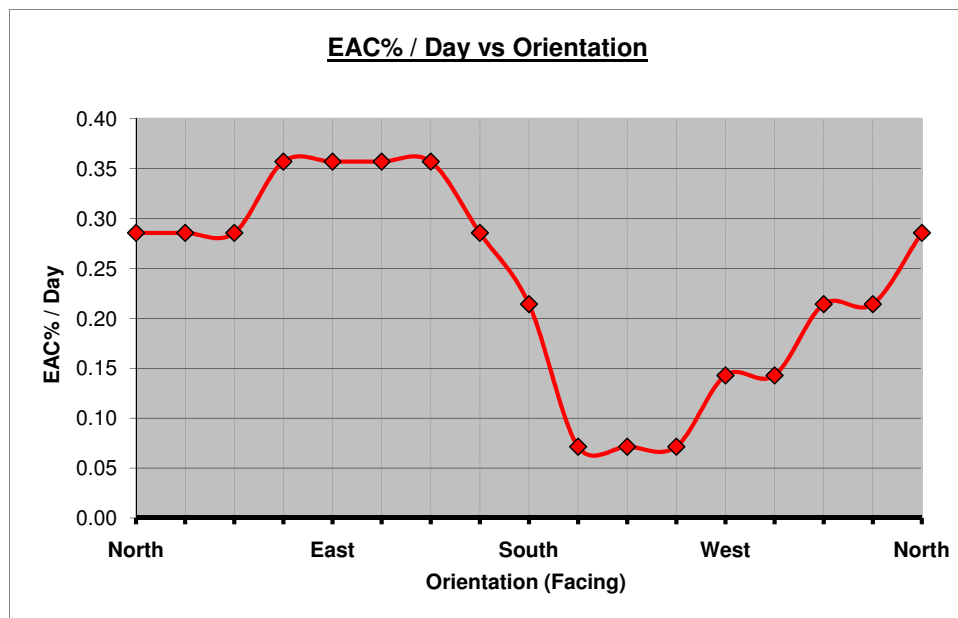
Note: Cells coloured red are inputs.
The rest are either constants or calculated values.
The calculation is based on taking readings at 20mm intervals along the sticky pad.

Gauge Number-West Location 907BRI

Sticky Pad Data

Date On 11/07/2011 Date Off 25/07/2011 Days = 14
Clean = 100

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	96	360	North	0.29
20	97	337		0.21
40	97	314		0.21
60	98	291		0.14
80	98	269	West	0.14
100	99	246		0.07
120	99	223		0.07
140	99	200		0.07
160	97	177	South	0.21
180	96	154		0.29
200	95	131		0.36
220	95	109		0.36
240	95	86	East	0.36
260	95	63		0.36
280	96	40		0.29
300	96	17		0.29
315	96	0	North	0.29



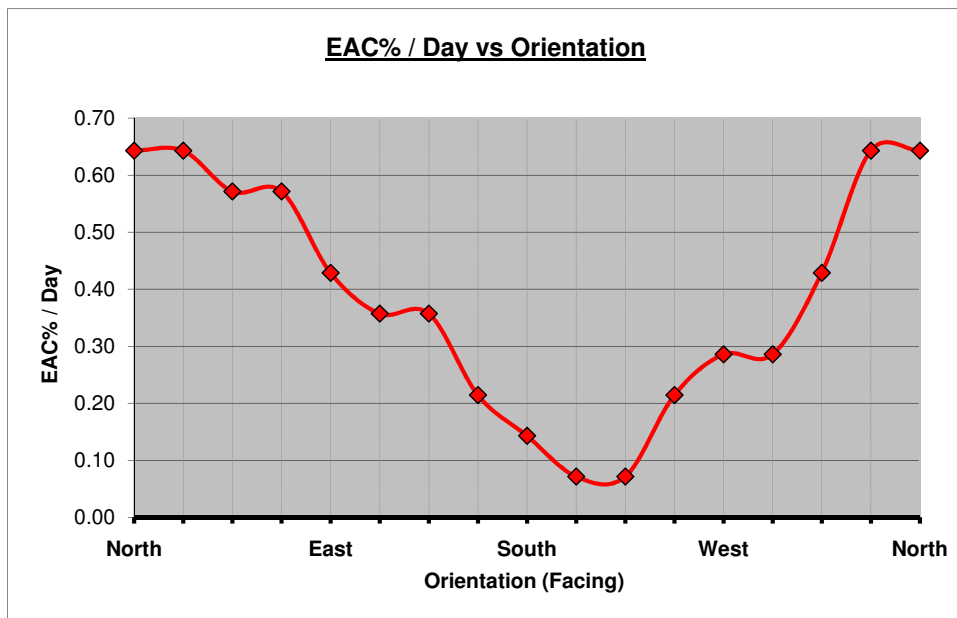
Note: Cells coloured red are inputs.
The rest are either constants or calculated values.
The calculation is based on taking readings at 20mm intervals along the sticky pad.

Gauge Number-NE2 Location 907BRI

Sticky Pad Data

Date On 11/07/2011 Date Off 25/07/2011 Days = 14
Clean = 100

X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	91	360	North	0.64
20	91	337		0.64
40	94	314		0.43
60	96	291		0.29
80	96	269	West	0.29
100	97	246		0.21
120	99	223		0.07
140	99	200		0.07
160	98	177	South	0.14
180	97	154		0.21
200	95	131		0.36
220	95	109		0.36
240	94	86	East	0.43
260	92	63		0.57
280	92	40		0.57
300	91	17		0.64
315	91	0	North	0.64



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

Gauge Number-South Location 907BRI

Sticky Pad Data

Date On 11/07/2011 Date Off 25/07/2011 Days = 14

Clean = 100

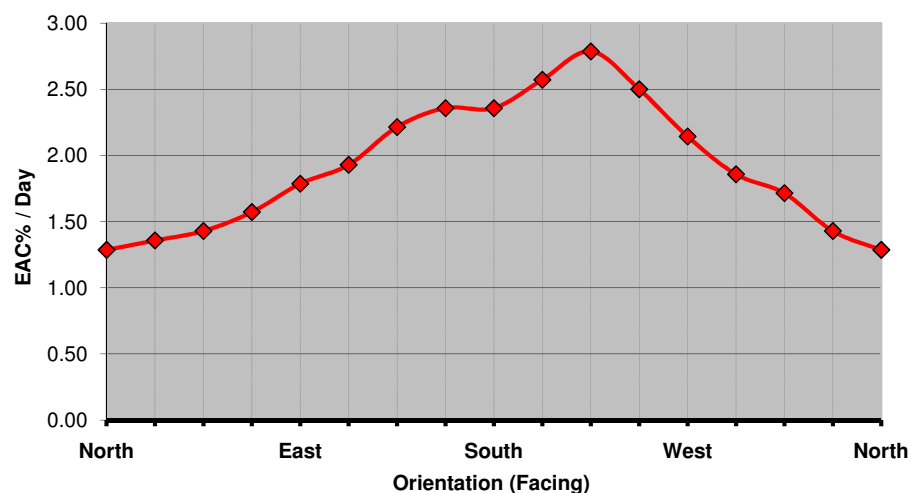
X Axis mm	Meter	Angle Deg	Orientation	EAC% / Day
0	82	360	North	1.29
20	80	337		1.43
40	76	314		1.71
60	74	291		1.86
80	70	269	West	2.14
100	65	246		2.50
120	61	223		2.79
140	64	200		2.57
160	67	177	South	2.36
180	67	154		2.36
200	69	131		2.21
220	73	109		1.93
240	75	86	East	1.79
260	78	63		1.57
280	80	40		1.43
300	81	17		1.36
315	82	0	North	1.29

+

20

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

EAC% / Day vs Orientation



Appendix E
Groundwater Level Data

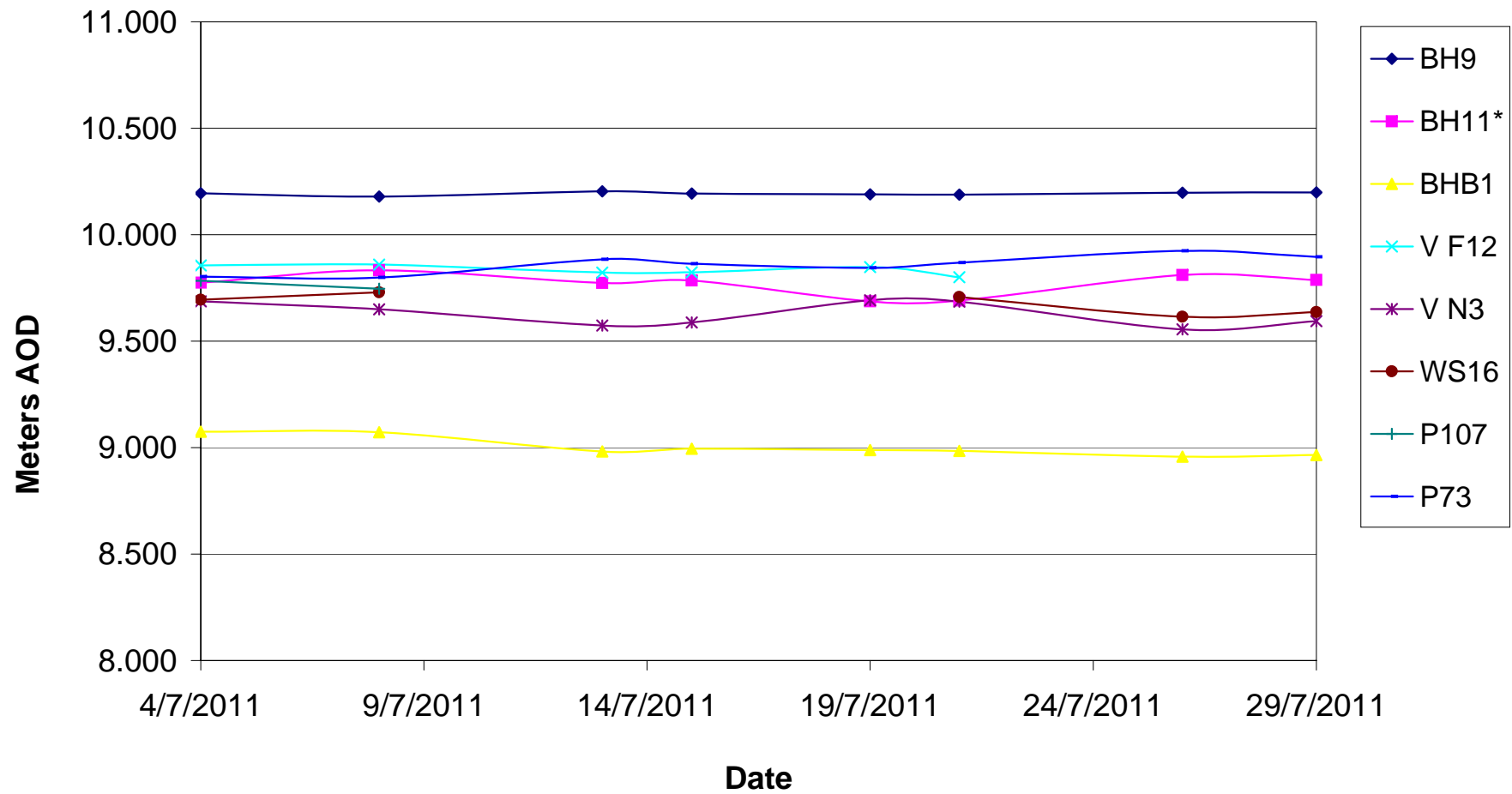
Date	BH6/06	S3/4	BH4	BH10B/06	BH9	S1/8	BH11*	S2/6	BHB1	W1 (n)	W2	W3 (s)	Riddy 1	Riddy 2	Riddy 3	Riddy 4	V F12	V N3	WS16	P107	P73
4/7/2011	9.861	10.247	9.750	Covered	10.195	Lost	9.775	Covered	9.075	No Access	No Access	DRY	9.168	9.264	9.522	9.633	9.856	9.687	9.694	9.783	9.803
8/7/2011	9.883	10.162	9.692	Covered	10.179	Lost	9.832	Covered	9.072	No Access	No Access	DRY	9.170	9.266	9.516	9.635	9.860	9.650	9.730	9.746	9.799
13/7/2011	9.800	10.160	9.637	Covered	10.203	Lost	9.773	Covered	8.982	No Access	No Access	DRY	9.164	No Access	9.545	9.629	9.822	9.573	No Access	Blocked	9.884
15/7/2011	9.810	10.148	9.639	Covered	10.193	Lost	9.785	Covered	8.995	No Access	No Access	DRY	9.169	No Access	No Access	9.631	9.824	9.587	No Access	Blocked	9.864
19/7/2011	9.925	10.140	9.619	Covered	10.190	Lost	9.687	Covered	8.989	No Access	No Access	DRY	9.161	No Access	No Access	9.629	9.848	9.692	No Access	Blocked	9.844
21/7/2011	9.921	10.130	9.614	Covered	10.188	Lost	9.691	Covered	8.985	No Access	No Access	DRY	9.161	No Access	No Access	9.622	9.800	9.685	9.708	Blocked	9.869
26/7/2011	9.802	10.175	Blocked	Covered	10.197	Lost	9.811	Covered	8.958	No Access	No Access	DRY	9.157	No Access	No Access	9.628	Covered	9.556	9.615	Blocked	9.924
29/7/2011	9.797	10.142	Blocked	Covered	10.199	Lost	9.787	Covered	8.965	No Access	No Access	DRY	9.159	No Access	No Access	9.624	Covered	9.594	9.636	Blocked	9.896

Appendix F
Surface Water Analysis Reports

Results Pending

Appendix G
Groundwater Level Graph

Hauxton Groundwater Level Data July 2011



Appendix H
Waste Water Treatment Plant Discharge Analysis

Water Quality Analysis of Effluent Discharge Sample

				Bromide	Chloride	Sulphate Ion	Suspended Solids (Total)	Ammoniacal Nitrogen	Biochemical Oxygen Demand	pH	Atrazine	Trietazine	Simazine	Total Atrazine, Trietazine and Simazine	Benazolin	2,3,6-TBA	Dicamba	Hempa	Schradan
Sample Taken	Report Date	Report Number	Sample Location	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l		µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
Consented Levels				50	3000	5000	45	15	30	na	Total of all three			250	50	20	50	274	135
1/3/2010	17/3/2010	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
30/3/2010	9/4/2010	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
8/4/2010	13/4/2010	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
10/4/2010	19/4/2010	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
12/4/2010	21/4/2010	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
28/4/2010	19/5/2010	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
7/5/2010	17/5/2010	199176	T99 Discharge	<1.0	110.00	200.00	<10	<0.05	6.6	8.2	<0.01	<0.01	<0.01	0.00	<0.2	3.00	<0.2	3.30	0.60
18/5/2010	1/6/2010	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
28/5/2010	17/6/2010	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
15/6/2010	28/6/2010	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
1/7/2010	19/7/2010	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
5/8/2010	16/8/2010	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
19/8/2010	26/8/2010	209961	WWTW Discharge	<0.1	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
1/9/2010	9/9/2010	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
16/9/2010	29/9/2010	212901	WWTW Discharge	<0.1	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
24/9/2010	4/10/2010	213745	WWTW Discharge	<0.1	160.00	340.00	35	<0.05	<3	8.0	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	24	0.6
8/10/2010	21/10/2010	215625	WWTW Discharge	<0.1	150.00	270.00	<10	<0.05	<3	8.2	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	52	2.2
21/10/2010	1/11/2010	216826	WWTW Discharge	<0.1	200.00	240.00	11	<0.05	<3	7.7	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	24	9.4
10/11/2010	22/11/2010	218850	WWTW Discharge	<0.1	81.00	120.00	<10	<0.05	<3	8.1	<0.01	0.03	<0.01	0.03	<0.1	0.7	<0.1	15	6.2
16/11/2010	23/11/2010	219447	WWTW Discharge	<0.1	150.00	160.00	<10	<0.05	<3	8.0	<0.01	<0.01	<0.01	0.00	<0.1	0.9	0.1	14	24
9/12/2010	23/12/2010	222558	WWTW Discharge	<0.2	64.00	120.00	<10	0.73	<3	8.1	<0.01	<0.01	<0.01	0.00	<0.1	2.9	0.3	10	5.1
22/12/2010	13/1/2011	223307	WWTW Discharge	<0.1	66.00	100.00	<10	<0.05	<3	8.0	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.01	11	8.5
13/1/2011	25/1/2011	224623	WWTW Discharge	<0.2	92.00	140.00	<10	0.38	<3	7.6	<0.01	0.05	<0.01	0.05	<0.1	<0.1	0.1	15	6.5
15/2/2011	23/2/2011	228099	WWTW Discharge	<0.1	170.00	220.00	<10	0.08	<3	9.1	<0.01	<0.01	<0.01	0.00	1.1	<0.1	<0.01	<0.1	<0.1
23/2/2011	9/3/2011	229026	WWTW Discharge	1.70	200.00	250.00	<10	<0.05	<3	8.1	<0.01	<0.01	<0.01	0.00	<0.1	0.20	<0.1	0.40	0.20
2/3/2011	15/3/2011	229789	WWTW Discharge	<0.1	220.00	290.00	<10	<0.05	<3	8.2	<0.01	0.02	<0.01	0.02	<0.1	0.4	<0.1	0.9	0.4
7/3/2011	18/3/2011	230442	WWTW Discharge	NT	NT	NT	NT	NT	NT	8.1	NT	NT	<0.01	NT	NT	NT	0.20	0.6	0.3
23/3/2011	1/4/2011	232143	WWTW Discharge	<0.1	190.00	210.00	<10	<0.05	<3	7.9	<0.01	0.02	<0.01	0.02	<0.1	<0.1	<0.1	0.5	0.2
5/4/2011	13/4/2011	233543	WWTW Discharge	<0.1	190.00	200.00	<10	<0.05	<3	8.0	<0.01	0.03	<0.01	0.03	<0.1	0.8	<0.1	1.1	0.5
20/4/2011	3/5/2011	235339	WWTW Discharge	<0.1	150.00	190.00	<10	<0.05	<3	4.0	<0.01	<0.01	<0.01	0.00	<0.1	<0.1	<0.1	1.2	0.4
4/5/2011	16/5/2011	236232	WWTW Discharge	<0.2	150.00	180.00	<10	<0.01	<3	8.1	0.03	0.07	0.01	0.11	<0.1	0.8	<0.1	0.8	0.3
12/5/2011	26/5/2011	237211	WWTW Discharge	<0.1	160.00	190.00	15	0.18	<3	8.1	0.03	0.09	<0.01	0.12	<0.1	0.3	<0.1	0.5	<0.1
18/5/2011	31/5/2011	237962	WWTW Discharge	<0.1	130.00	170.00	<10	<0.05	<3	7.9	<0.01	<0.01	<0.01	0.00	<0.1	0.2	0.1	0.4	0.1
2/6/2011	14/6/2011	239421	WWTW Discharge	0.5	130.00	190.00	<10	<0.05	<3	7.8	0.05	0.07	<0.01	0.12	<0.1	3.3	0.3	10	6.7
14/6/2011	22/6/2011	240642	WWTW Discharge	<0.1	140.00	220.00	<10	<0.05	24	8.1	<0.01	<0.01	<0.01	0.00	<0.1	2.5	<0.1	31	30
29/6/2011	7/7/2011	242142	WWTW Discharge	<0.2	160.00	260.00	<10	<0.05	<3	8.2	<0.01	0.01	<0.01	0.01	<0.1	<0.1	<0.1	16	5
11/7/2011	21/7/2011	243434	WWTW Discharge	<0.1	150.00	240.00	<10	<0.05	<3	8.1	<0.01	0.03	<0.01	0.03	<0.1	3	<0.1	12	9.9
25/7/2011	1/8/2011	244979	WWTW Discharge	<0.1	150.00	240.00	<10	0.07	<3	8.2	<0.01	<0.01	<0.01	0.00	<0.1	10	0.4	19	12



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Scientific Analysis Laboratories

Certificate of Analysis

Hadfield House
Hadfield Street
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Tel : 0161 874 2400
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Report Number: 243434-1

Date of Report: 21-Jul-2011

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

Customer Contact: Ms. Lucy Buckley

Customer Job Reference: 907BRI
Date Job Received at SAL: 12-Jul-2011
Date Analysis Started: 12-Jul-2011
Date Analysis Completed: 21-Jul-2011

The results reported relate to samples received in the laboratory
Opinions and interpretations expressed herein are outside the scope of UKAS accreditation
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1549

Report checked
and authorised by :
Amelia McVennon
Project Manager

Issued by :
Amelia McVennon
Project Manager

SAL Reference: 243434 Customer Reference: 907BRI Water Analysed as Water Miscellaneous						
SAL Reference			243434 001	243434 002		
Customer Sample Reference			Primary	Discharge		
Date Sampled			11-JUL-2011	11-JUL-2011		
Determinand	Method	Test Sample	LOD	Units		
Ammoniacal nitrogen	T4	AR	50	µg/l	<50	<50
Biochemical Oxygen Demand	T7	AR	3000	µg/l	<3000	<3000
pH	T7	AR			8.3	8.1

SAL Reference: 243434 Customer Reference: 907BRI Water Analysed as Water Suite A						
SAL Reference			243434 001	243434 002		
Customer Sample Reference			Primary	Discharge		
Date Sampled			11-JUL-2011	11-JUL-2011		
Determinand	Method	Test Sample	LOD	Units		
Atrazine	T16	AR	0.01	µg/l	0.73	<0.01
Trietazine	T16	AR	0.01	µg/l	17	0.03

SAL Reference: 243434 Customer Reference: 907BRI Water Analysed as Water Suite B						
SAL Reference			243434 001	243434 002		
Customer Sample Reference			Primary	Discharge		
Date Sampled			11-JUL-2011	11-JUL-2011		
Determinand	Method	Test Sample	LOD	Units		
Benazolin	T16	AR	0.1	µg/l	37	<0.1
2,3,6-TCB	T16	AR	0.1	µg/l	130	3.0

SAL Reference: 243434 Customer Reference: 907BRI Water Analysed as Water Suite C						
SAL Reference			243434 001	243434 002		
Customer Sample Reference			Primary	Discharge		
Date Sampled			11-JUL-2011	11-JUL-2011		
Determinand	Method	Test Sample	LOD	Units		
Bromide	T253	AR	100	µg/l	⁽⁹⁾ <1000	⁽⁹⁾ <1000
Chloride	T253	AR	200	µg/l	150000	150000
Sulphate ion	T253	AR	100	µg/l	280000	240000
Suspended Solids (Total)	T2	AR	10000	µg/l	10000	<10000

SAL Reference: 243434 Customer Reference: 907BRI Water Analysed as Water Suite D						
SAL Reference			243434 001	243434 002		
Customer Sample Reference			Primary	Discharge		
Date Sampled			11-JUL-2011	11-JUL-2011		
Determinand	Method	Test Sample	LOD	Units		
Dicamba	T16	AR	0.1	µg/l	1.8	<0.1
Hempa	T16	AR	0.1	µg/l	70	12
Schradan	T16	AR	0.1	µg/l	83	9.9
Simazine	T16	AR	0.01	µg/l	0.54	<0.01

SAL Reference: 243434 Customer Reference: 907BRI Water Analysed as Water Suite E						
SAL Reference			243434 001	243434 002		
Customer Sample Reference			Primary	Discharge		
Date Sampled			11-JUL-2011	11-JUL-2011		
Determinand	Method	Test Sample	LOD	Units		
TVC at 22 C	T34	AR	10	cfu/ml	1100	2500
TVC at 37 C	T34	AR	10	cfu/ml	100	70

Index to symbols used in 243434-1

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

Method Index

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

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
TVC at 22 C	T34	AR	10	cfu/ml	WN	001-002

Determinand	Method	Test Sample	LOD	Units	Symbol	SAL References
TVC at 37 C	T34	AR	10	cfu/ml	WN	001-002





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Scientific Analysis Laboratories

Certificate of Analysis

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Hadfield Street
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Report Number: 244979-1

Date of Report: 01-Aug-2011

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

Customer Contact: The Project Management

Customer Job Reference: 907 BRI WWTW
Date Job Received at SAL: 26-Jul-2011
Date Analysis Started: 26-Jul-2011
Date Analysis Completed: 01-Aug-2011

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



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Report checked
and authorised by :
Amelia McVennon
Project Manager

Issued by :
Amelia McVennon
Project Manager

SAL Reference: 244979 Customer Reference: 907 BRI WWTW Water Analysed as Water Miscellaneous						
SAL Reference			244979 001	244979 002		
Customer Sample Reference			Primary	Discharge		
Date Sampled			25-JUL-2011	25-JUL-2011		
Determinand	Method	Test Sample	LOD	Units		
Ammoniacal nitrogen	T4	AR	50	µg/l	90	70
Biochemical Oxygen Demand	T7	AR	3000	µg/l	5000	<3000
pH	T7	AR			8.3	8.2

SAL Reference: 244979 Customer Reference: 907 BRI WWTW Water Analysed as Water Suite A						
SAL Reference			244979 001	244979 002		
Customer Sample Reference			Primary	Discharge		
Date Sampled			25-JUL-2011	25-JUL-2011		
Determinand	Method	Test Sample	LOD	Units		
Atrazine	T16	AR	0.01	µg/l	2.1	<0.01
Trietazine	T16	AR	0.01	µg/l	9.7	<0.01

SAL Reference: 244979 Customer Reference: 907 BRI WWTW Water Analysed as Water Suite B						
SAL Reference			244979 001	244979 002		
Customer Sample Reference			Primary	Discharge		
Date Sampled			25-JUL-2011	25-JUL-2011		
Determinand	Method	Test Sample	LOD	Units		
Benazolin	T16	AR	0.1	µg/l	38	<0.1
2,3,6-TCB	T16	AR	0.1	µg/l	130	10

SAL Reference: 244979 Customer Reference: 907 BRI WWTW Water Analysed as Water Suite C						
SAL Reference			244979 001	244979 002		
Customer Sample Reference			Primary	Discharge		
Date Sampled			25-JUL-2011	25-JUL-2011		
Determinand	Method	Test Sample	LOD	Units		
Bromide	T253	AR	100	µg/l	⁽⁹⁾ <1000	⁽⁹⁾ <1000
Chloride	T253	AR	200	µg/l	160000	150000
Sulphate ion	T253	AR	100	µg/l	240000	240000
Suspended Solids (Total)	T2	AR	10000	µg/l	<10000	<10000

SAL Reference: 244979 Customer Reference: 907 BRI WWTW Water Analysed as Water Suite D						
SAL Reference			244979 001	244979 002		
Customer Sample Reference			Primary	Discharge		
Date Sampled			25-JUL-2011	25-JUL-2011		
Determinand	Method	Test Sample	LOD	Units		
Dicamba	T16	AR	0.1	µg/l	3.2	0.4
Hempa	T16	AR	0.1	µg/l	160	19
Schradan	T16	AR	0.1	µg/l	120	12
Simazine	T16	AR	0.01	µg/l	0.59	<0.01

SAL Reference: 244979 Customer Reference: 907 BRI WWTW Water Analysed as Water Suite E						
SAL Reference			244979 001	244979 002		
Customer Sample Reference			Primary	Discharge		
Date Sampled			25-JUL-2011	25-JUL-2011		
Determinand	Method	Test Sample	LOD	Units		
TVC at 22 C	T34	AR	10	cfu/ml	9600	12000
TVC at 37 C	T34	AR	10	cfu/ml	1400	700

Index to symbols used in 244979-1

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

Method Index

Value	Description
T253	IC(EID299)
T34	Micro
T4	Colorimetry
T16	GC/MS
T2	Grav
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
TVC at 22 C	T34	AR	10	cfu/ml	WN	001-002

Determinand	Method	Test Sample	LOD	Units	Symbol	SAL References
TVC at 37 C	T34	AR	10	cfu/ml	WN	001-002



Appendix I
Soil Characterisation Results Summary

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

Former Bayer Cropscience Site

Contaminants Not Previously Identified

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

Former Bayer Cropscience Site

Contaminants Not Previously Identified

18.06.2010	29.06.2010	I8	2-methyl phenol	5,500	Encountered and assessed during site investigation, not a priority contaminant
			1,2-dichlorobenzene	3,600	Contaminant of concern, already included in the standard validation suite
17.06.2010	29.06.2010 (09.06.2010)	K10	2,4-Dichloro-o-cresol	550,000	As for I9 and H7
22.06.2010		L10	Cyclo octaatomic sulphur	16,000	As for L8 - Sulphur
20.07.2010	21.07.2010	K10 NAPL	Dichloromethyl phenol	1,800,000	As for 2,4-Dichloro-o-cresol (I9, H7, K10)
			Naphthalene	4,600,000	Encountered and assessed during site investigation, not a priority contaminant
			2-methylnaphthalene	3,900,000	
			1-methylnaphthalene CAS 90-12-0	2,400,000	More toxic than 2-methylnaphthalene, must be assessed separately
			Dinoseb CAS 88-85-7	68,000,000	2-(1-methylpropyl)-4,6-dinitro-phenol - herbicide and insecticide. Yellow crystalline solid.
21.07.2010	22.07.2010	J10	Dichloromethyl phenol	24,000	As for 2,4-Dichloro-o-cresol (I9, H7, K10)
			1-(2-Chloroethoxy)-2-(o-Tolyloxy) ethane CAS 21120-80-9	13,000	Same as I9
			1,2,4-Trichlorobenzene	28,000	Encountered and assessed during site investigation, not a priority contaminant
			Trichlorobenzene	32,000	
			2-Chlorotoluene	60,000	Same as I9
			Trichloro toluene isomer	48,000	
			Trichloro benzenamine isomer	11,000	
21.07.2010	22.07.2010	J10	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

Former Bayer Cropscience Site

Contaminants Not Previously Identified

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
			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
			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

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

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

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

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