CERTIFICATE OF ANALYSIS

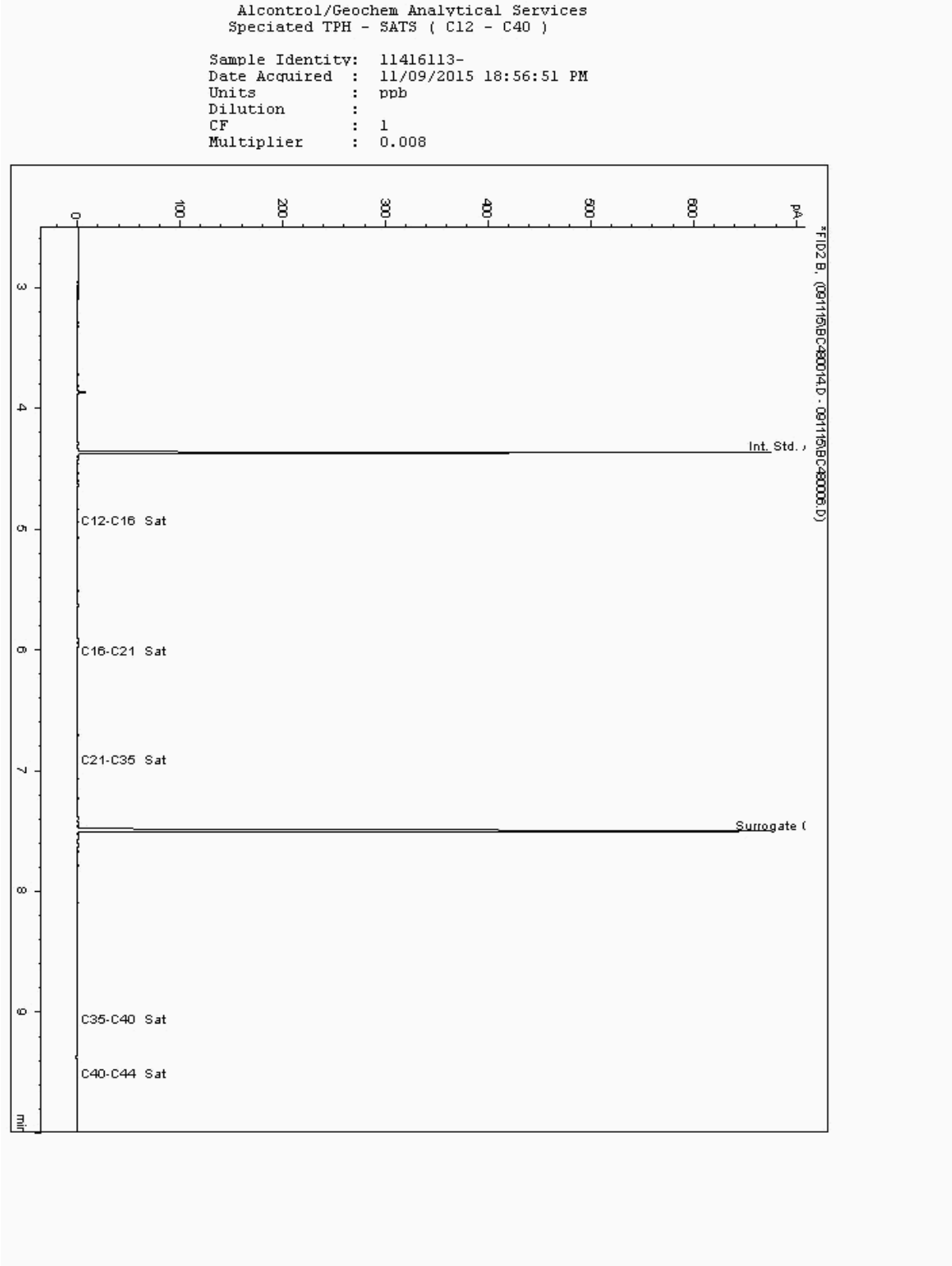
SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 12041693
Sample ID : BH111

Depth :



CERTIFICATE OF ANALYSIS

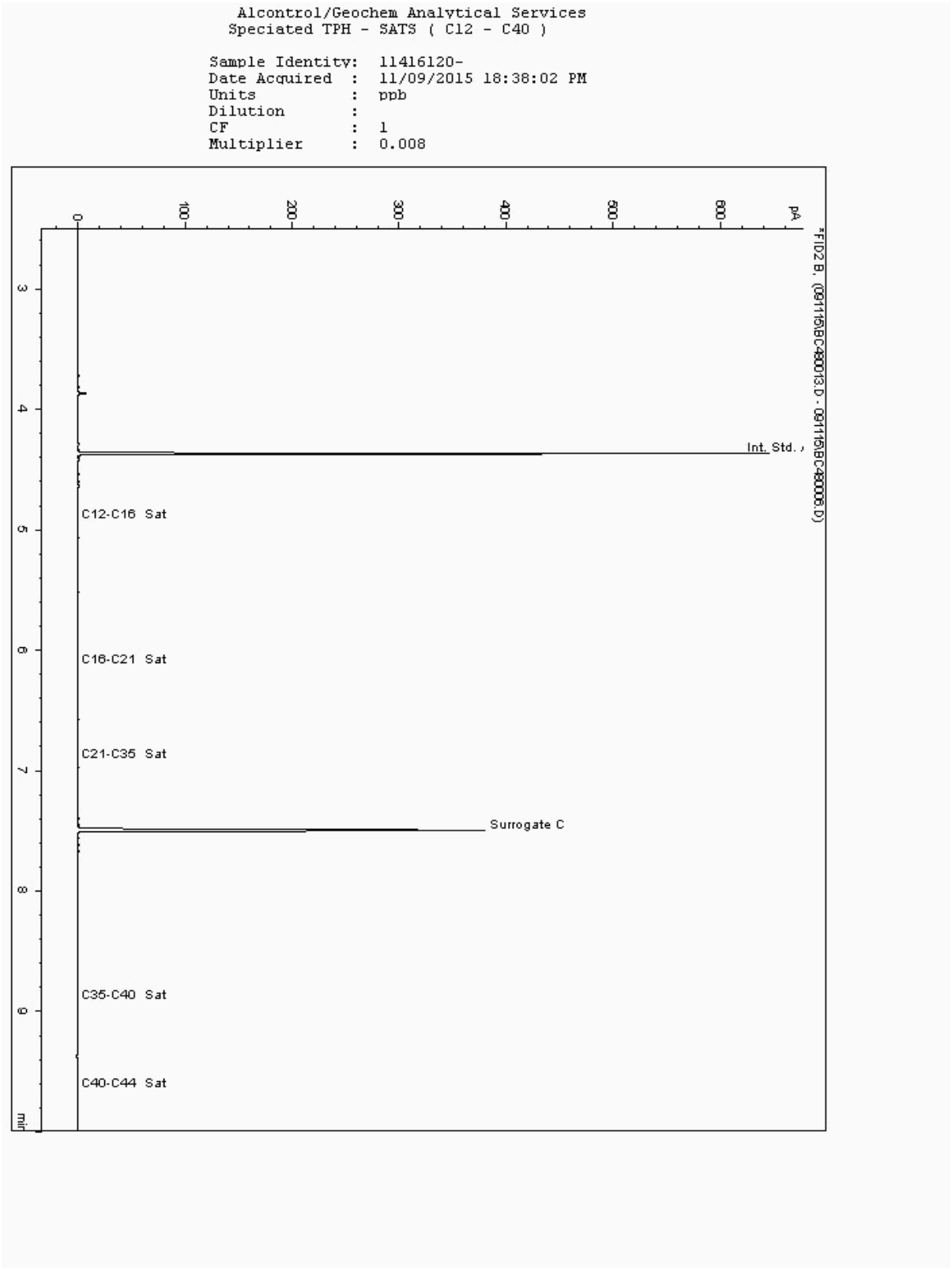
SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 12041696
Sample ID : DUP01

Depth :



CERTIFICATE OF ANALYSIS

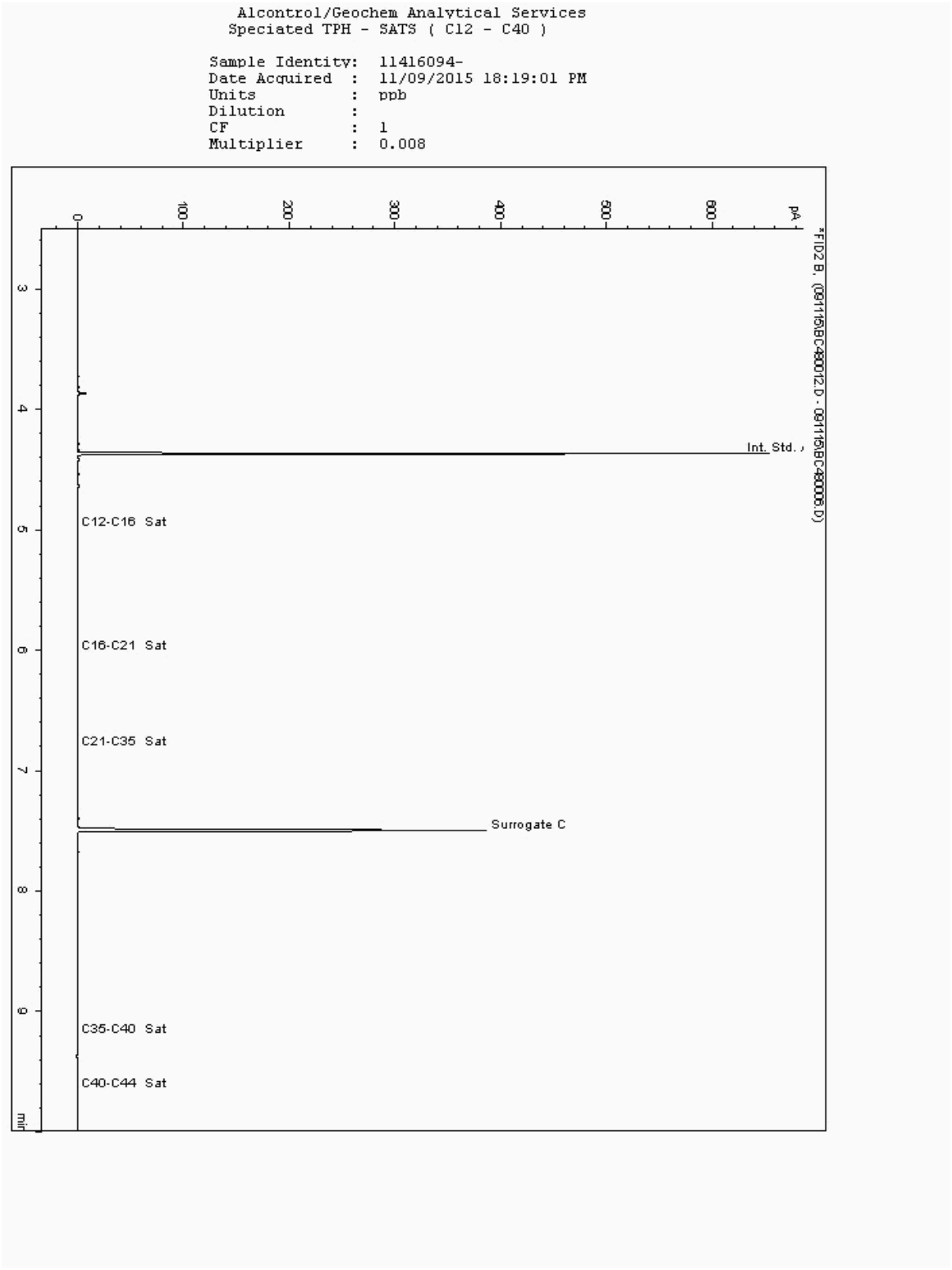
SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 12041700
Sample ID : BH110

Depth :



CERTIFICATE OF ANALYSIS

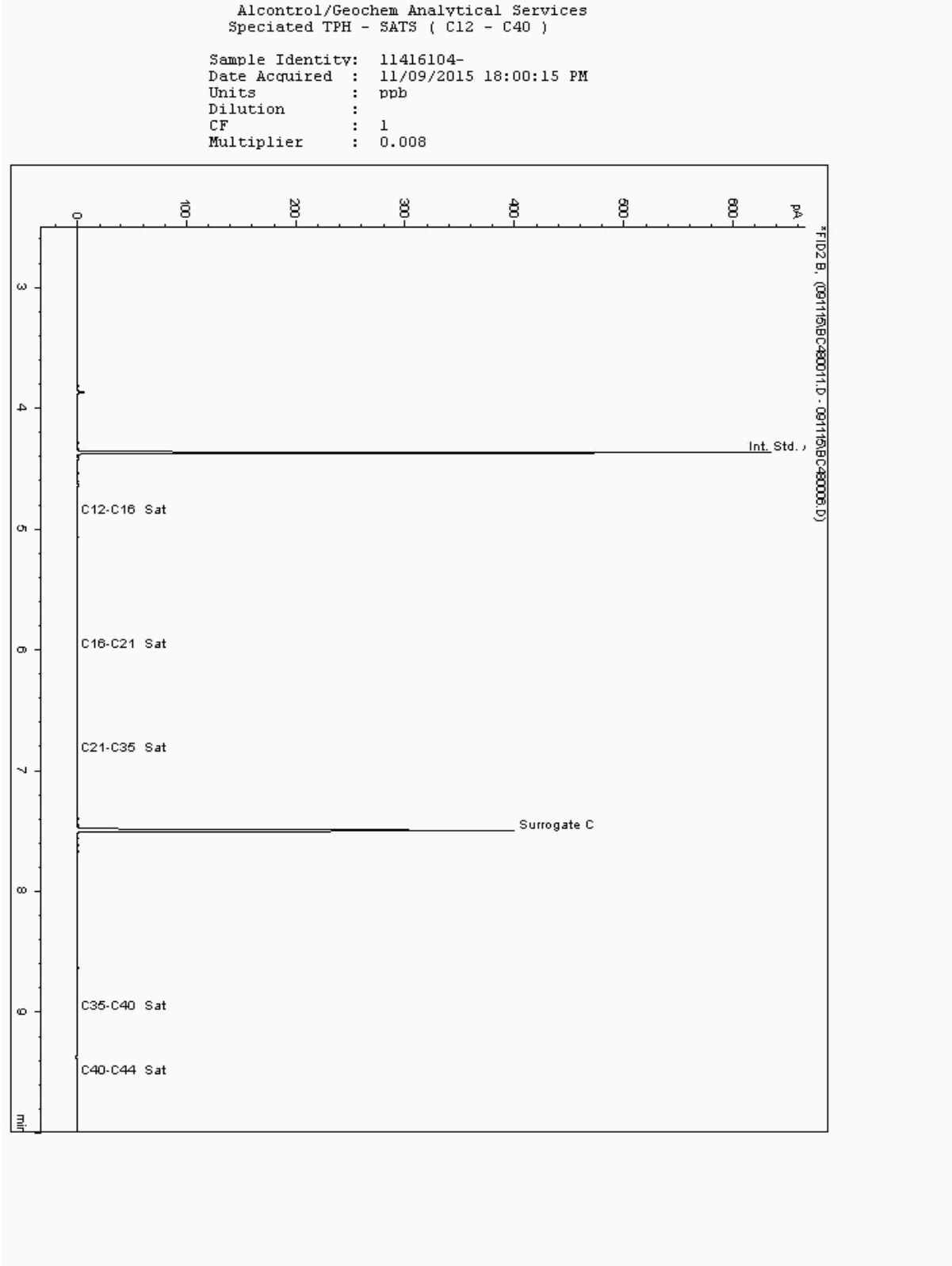
SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 12041705
Sample ID : BH8

Depth :



CERTIFICATE OF ANALYSIS

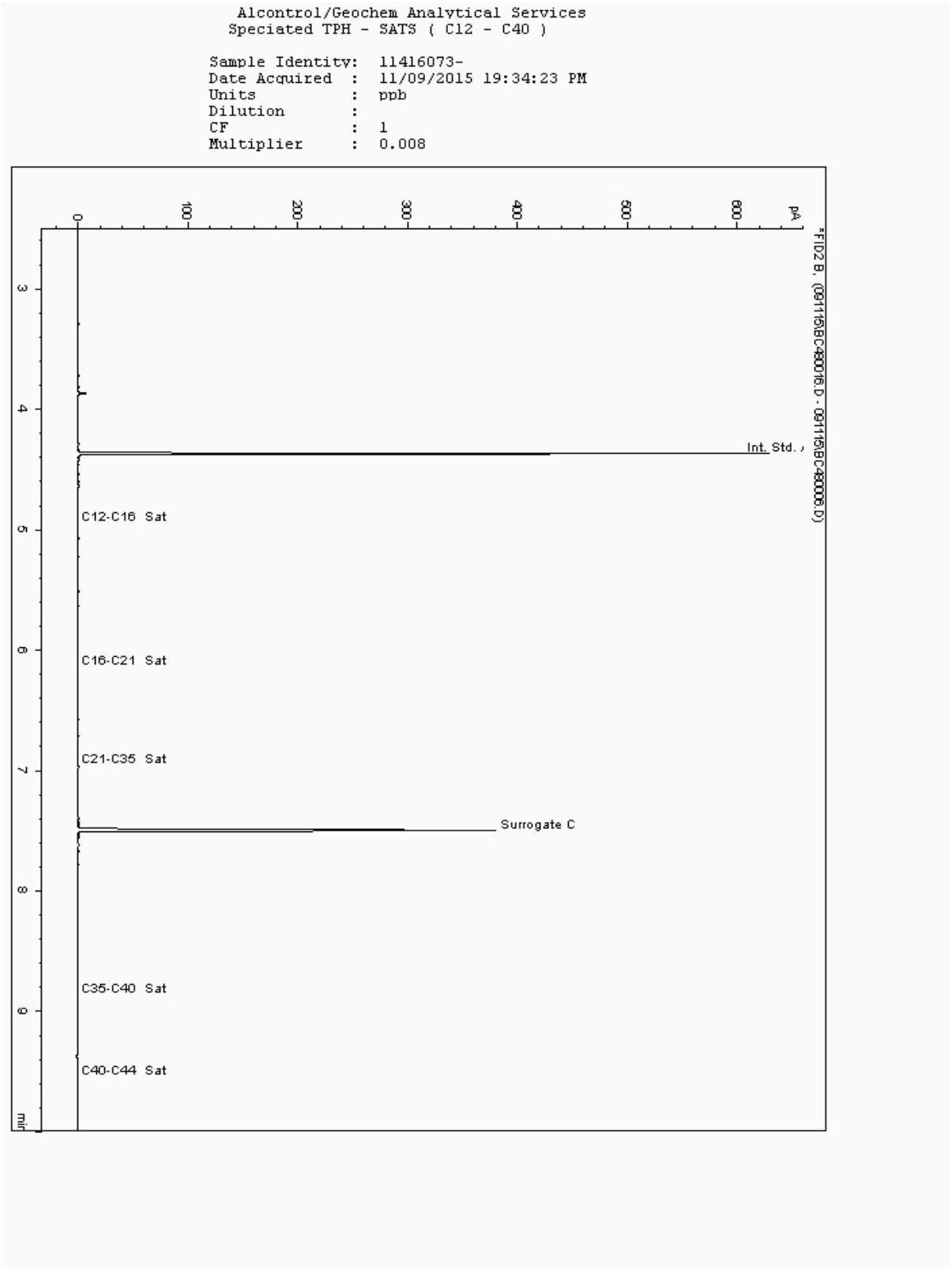
SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 12041823
Sample ID : BH4

Depth :



CERTIFICATE OF ANALYSIS

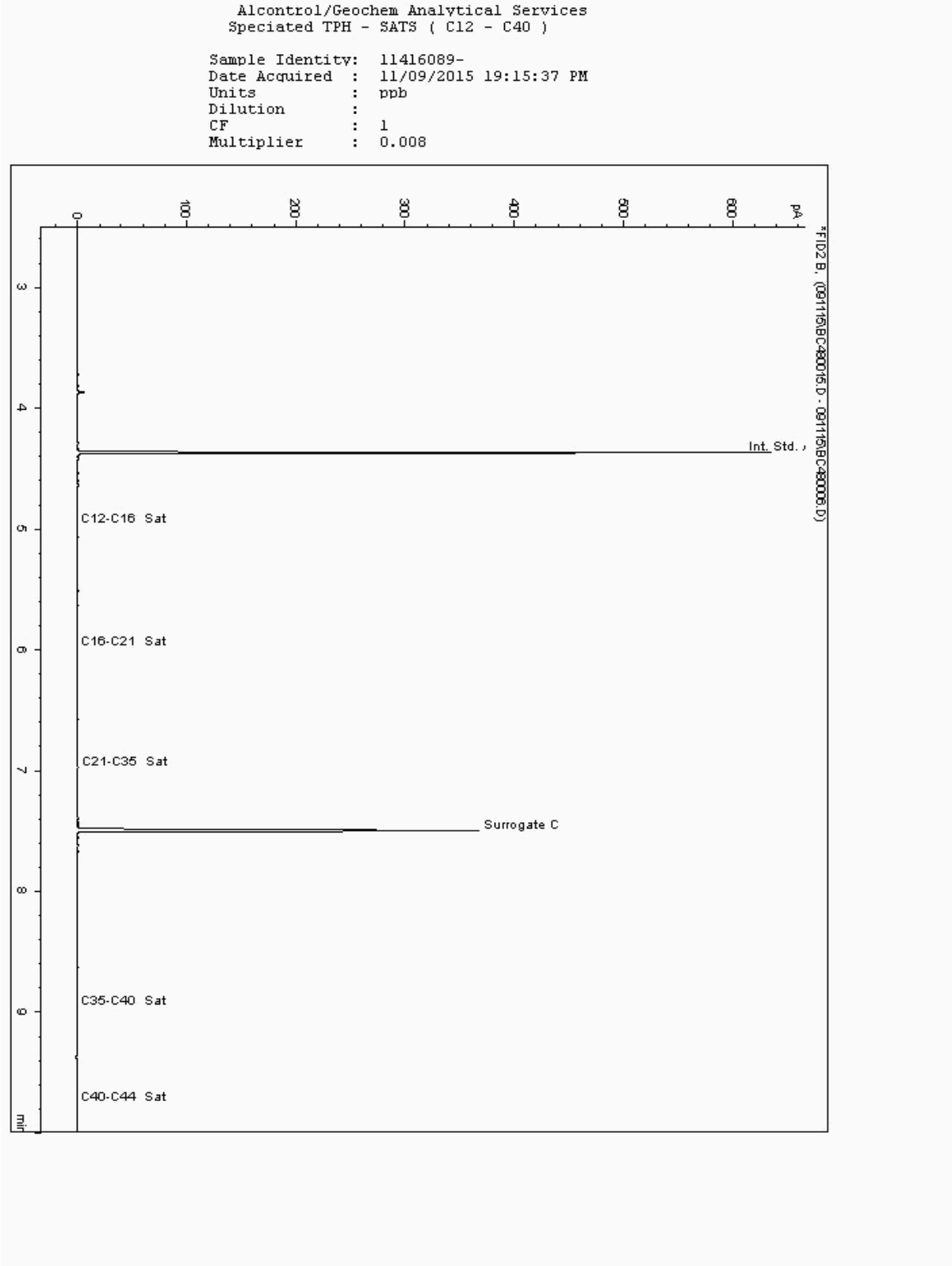
SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 12041835
Sample ID : BH3

Depth :



CERTIFICATE OF ANALYSIS

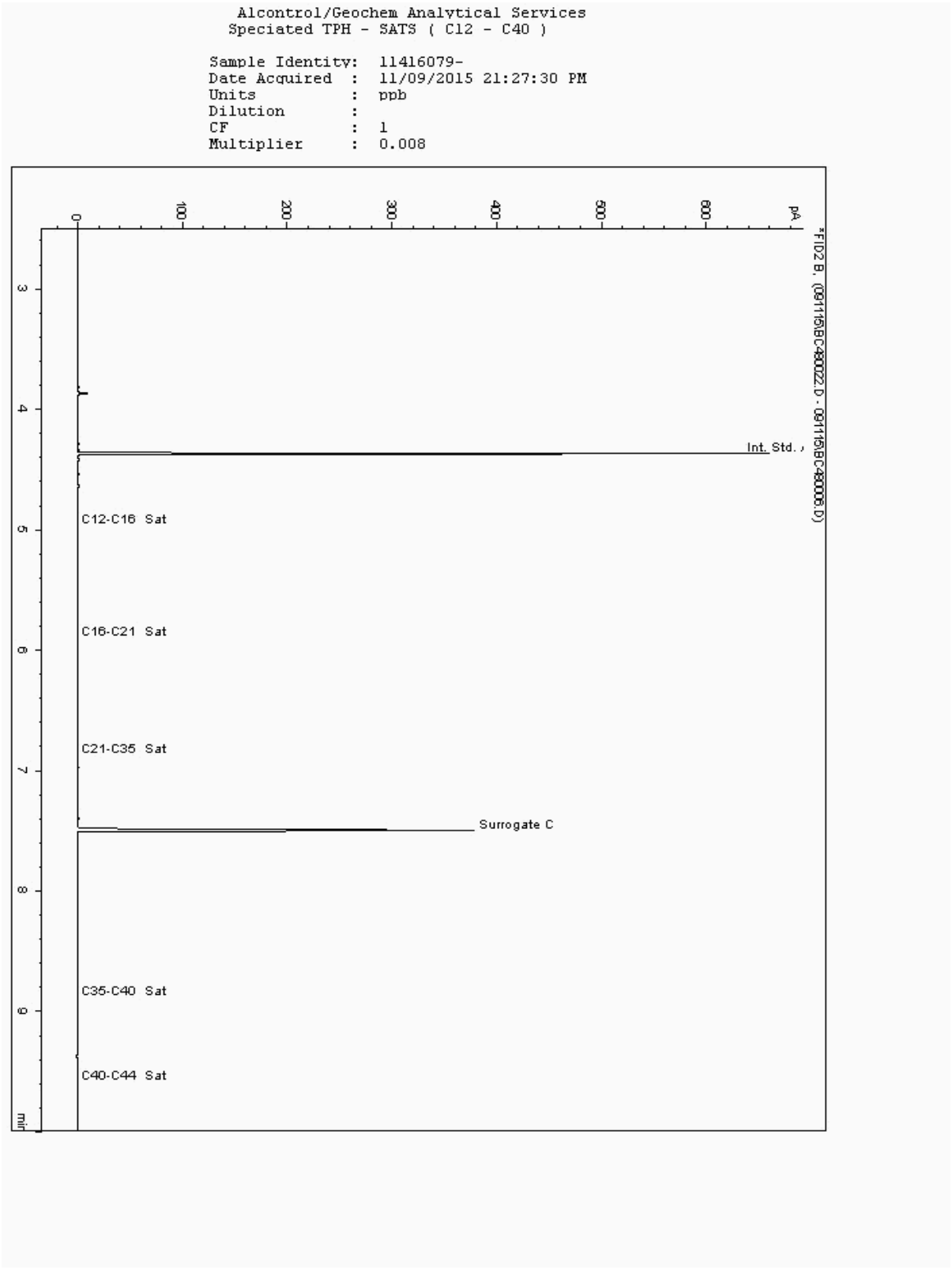
SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 12041844
Sample ID : BH5

Depth :



CERTIFICATE OF ANALYSIS

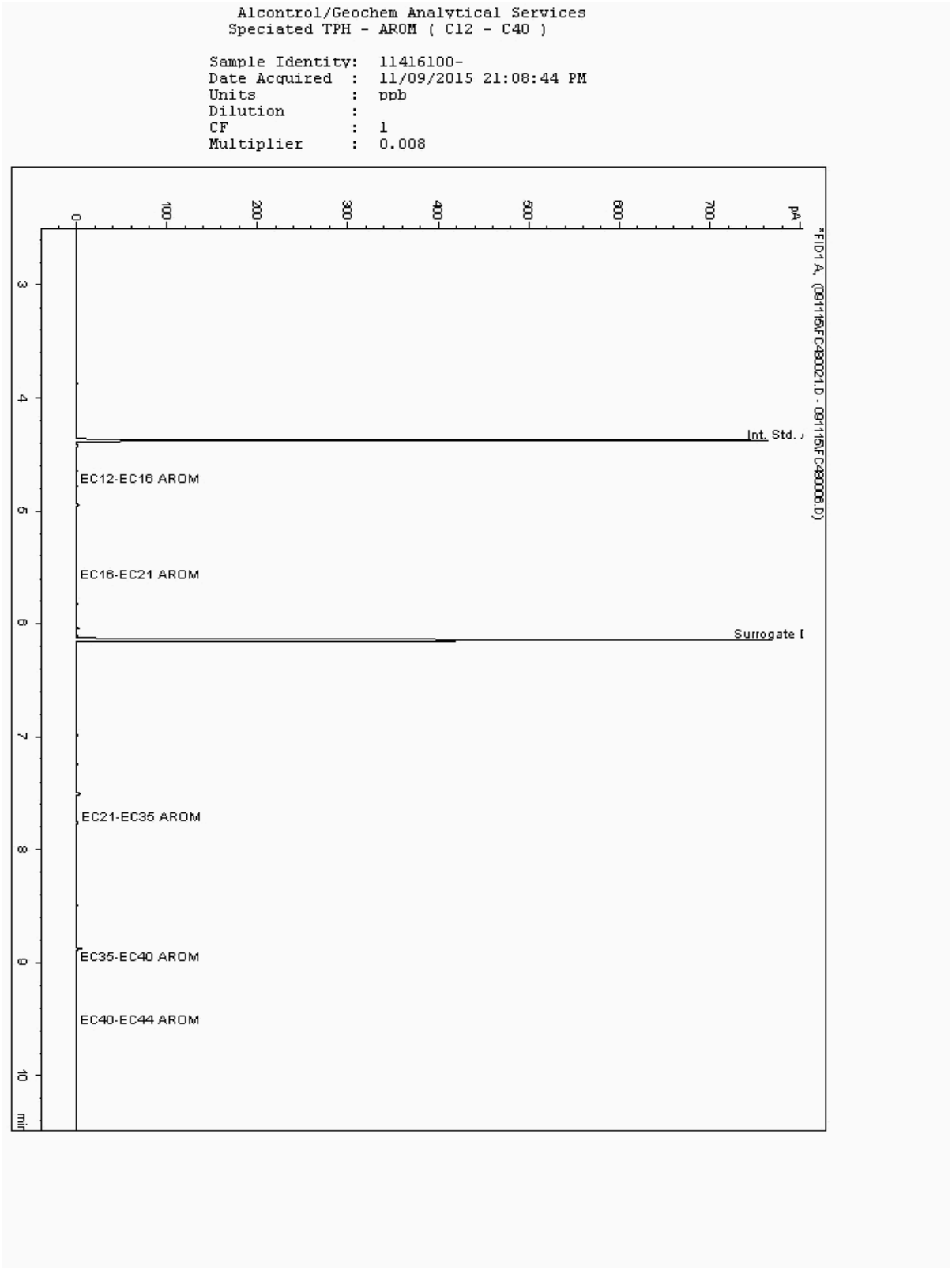
SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 12041687
Sample ID : BH109

Depth :



CERTIFICATE OF ANALYSIS

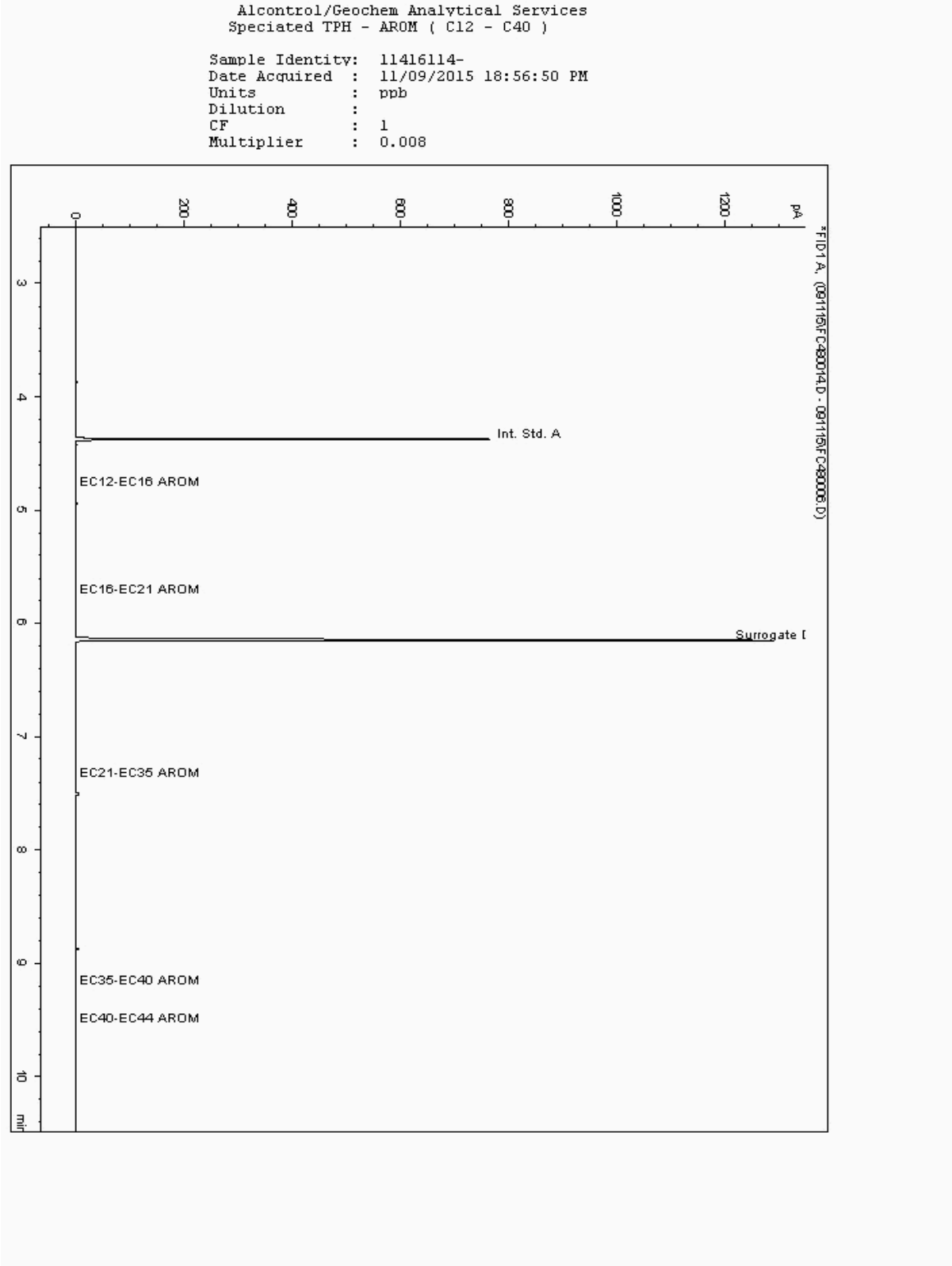
SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 12041693
Sample ID : BH111

Depth :

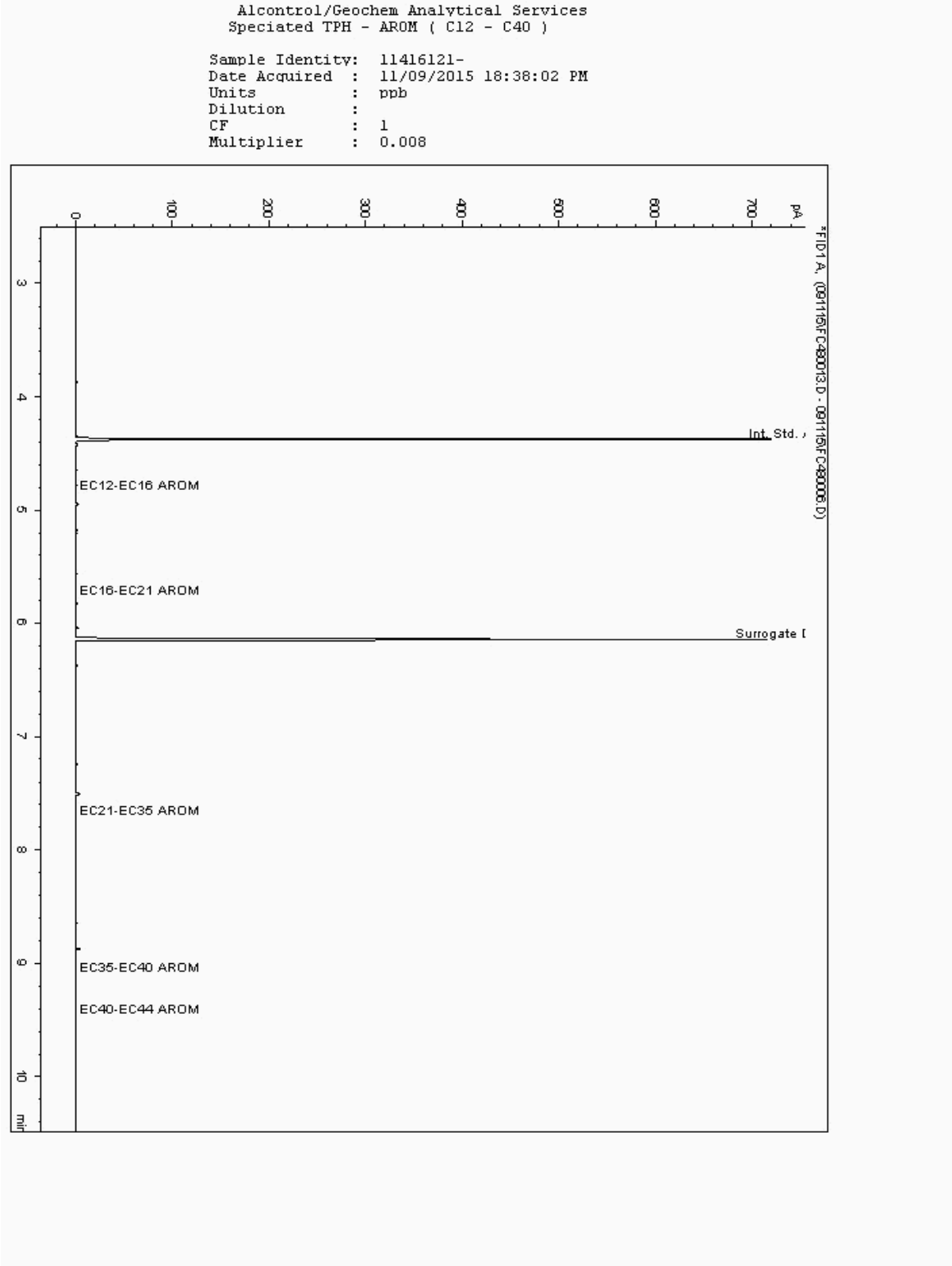


CERTIFICATE OF ANALYSIS

SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 12041696 **Sample ID :** DUP01 **Depth :**

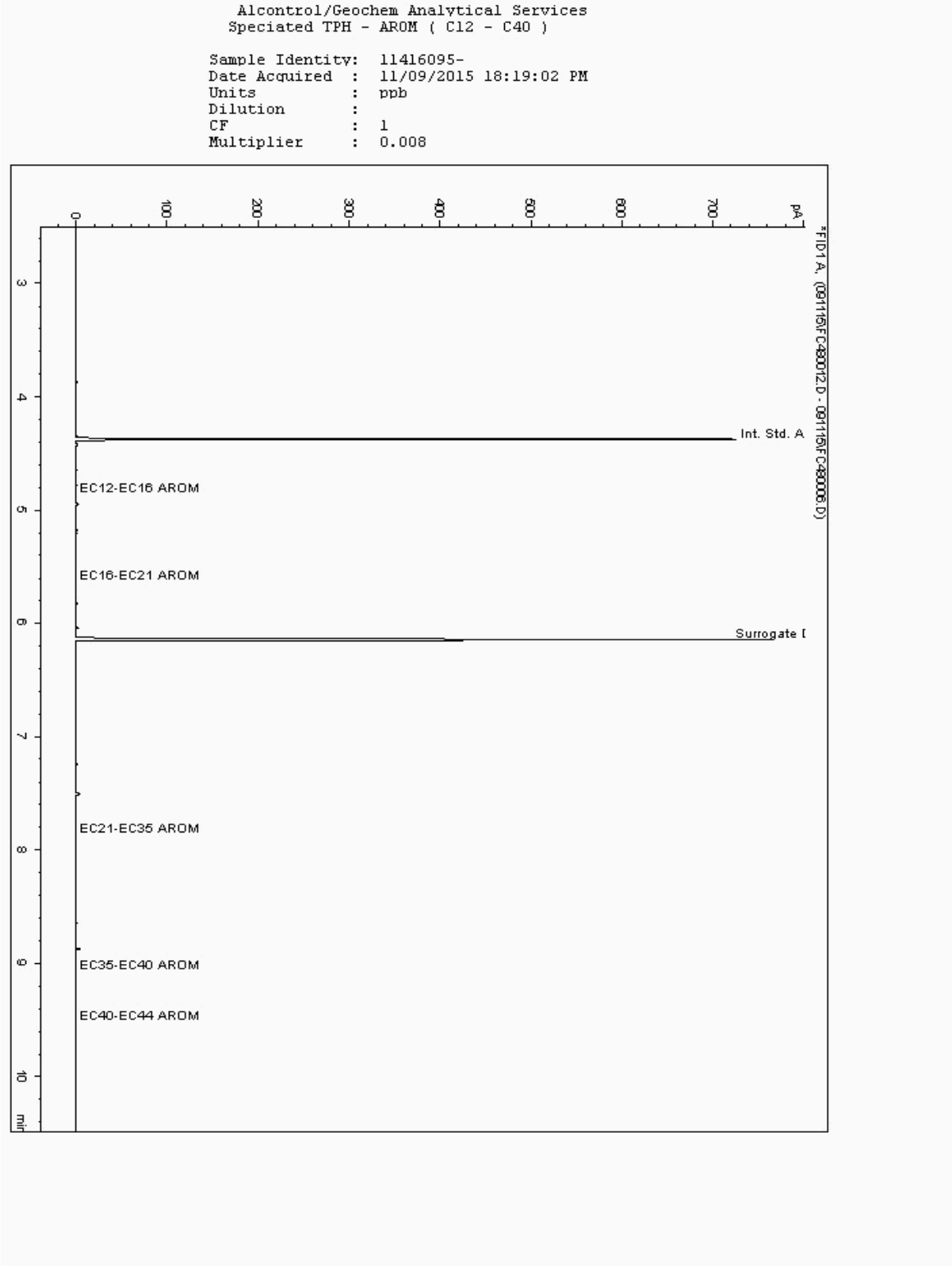


CERTIFICATE OF ANALYSIS

SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 12041700 **Sample ID :** BH110 **Depth :**

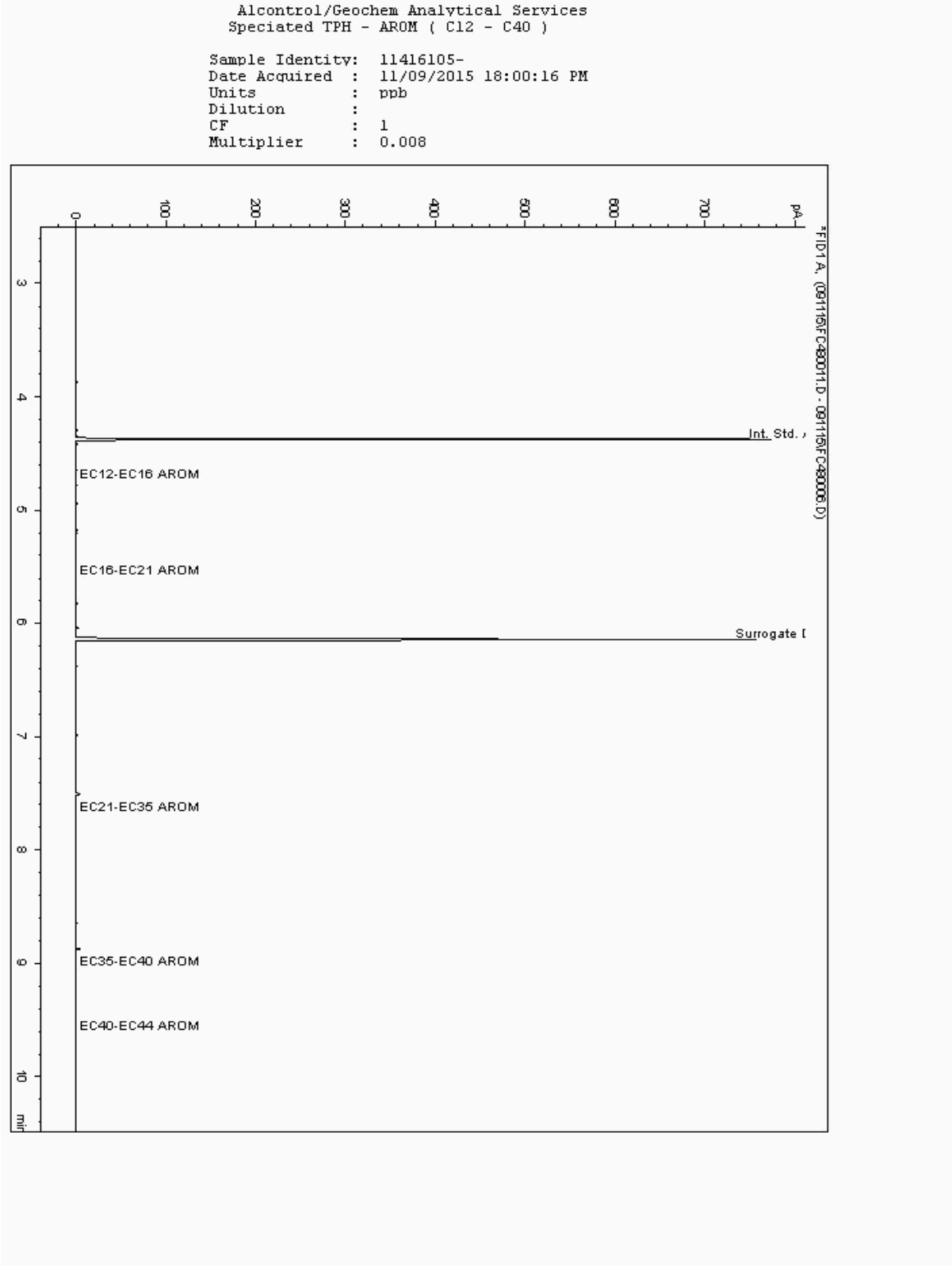


CERTIFICATE OF ANALYSIS

SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 12041705 **Sample ID :** BH8 **Depth :**



CERTIFICATE OF ANALYSIS

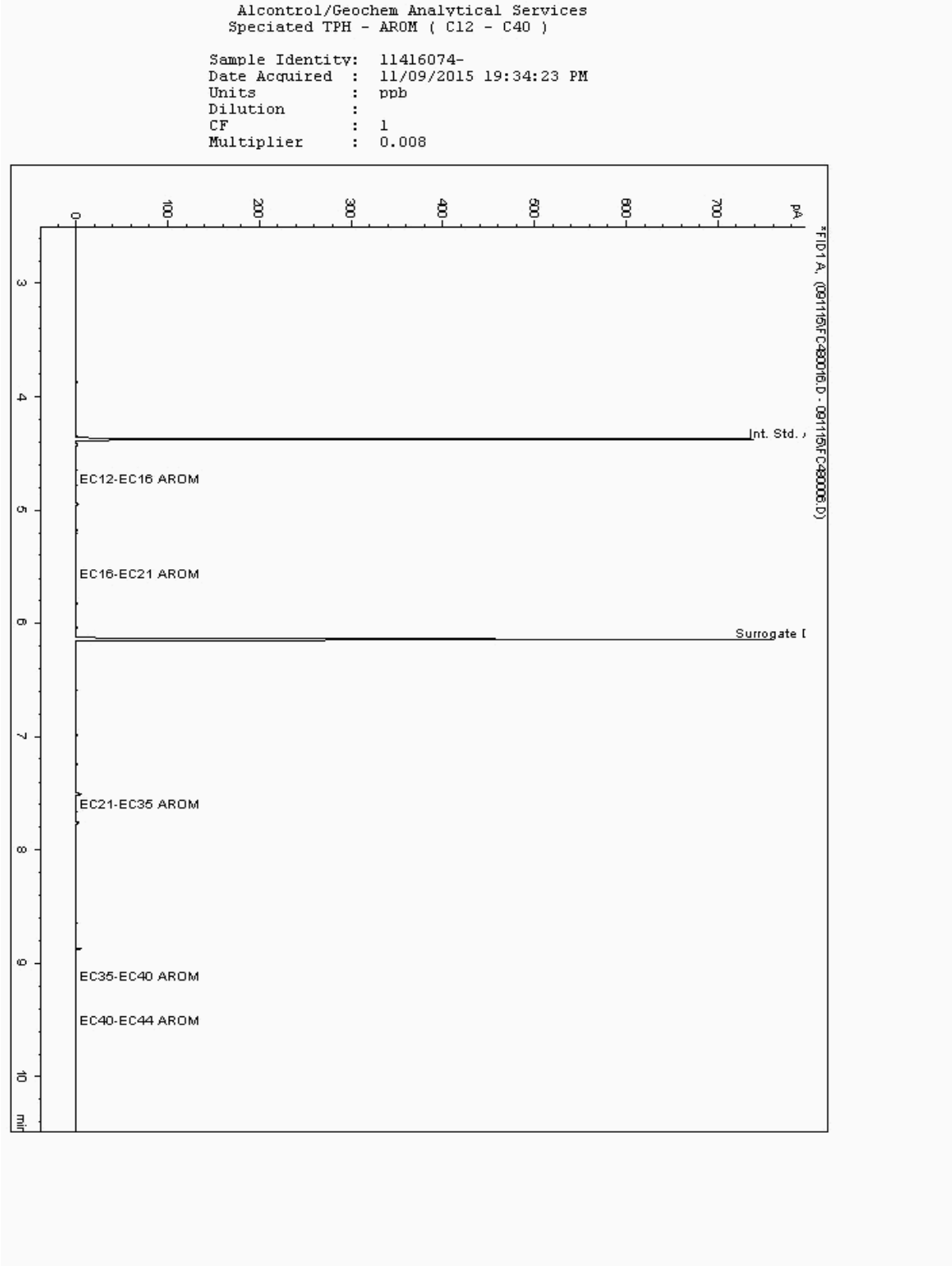
SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 12041823
Sample ID : BH4

Depth :



CERTIFICATE OF ANALYSIS

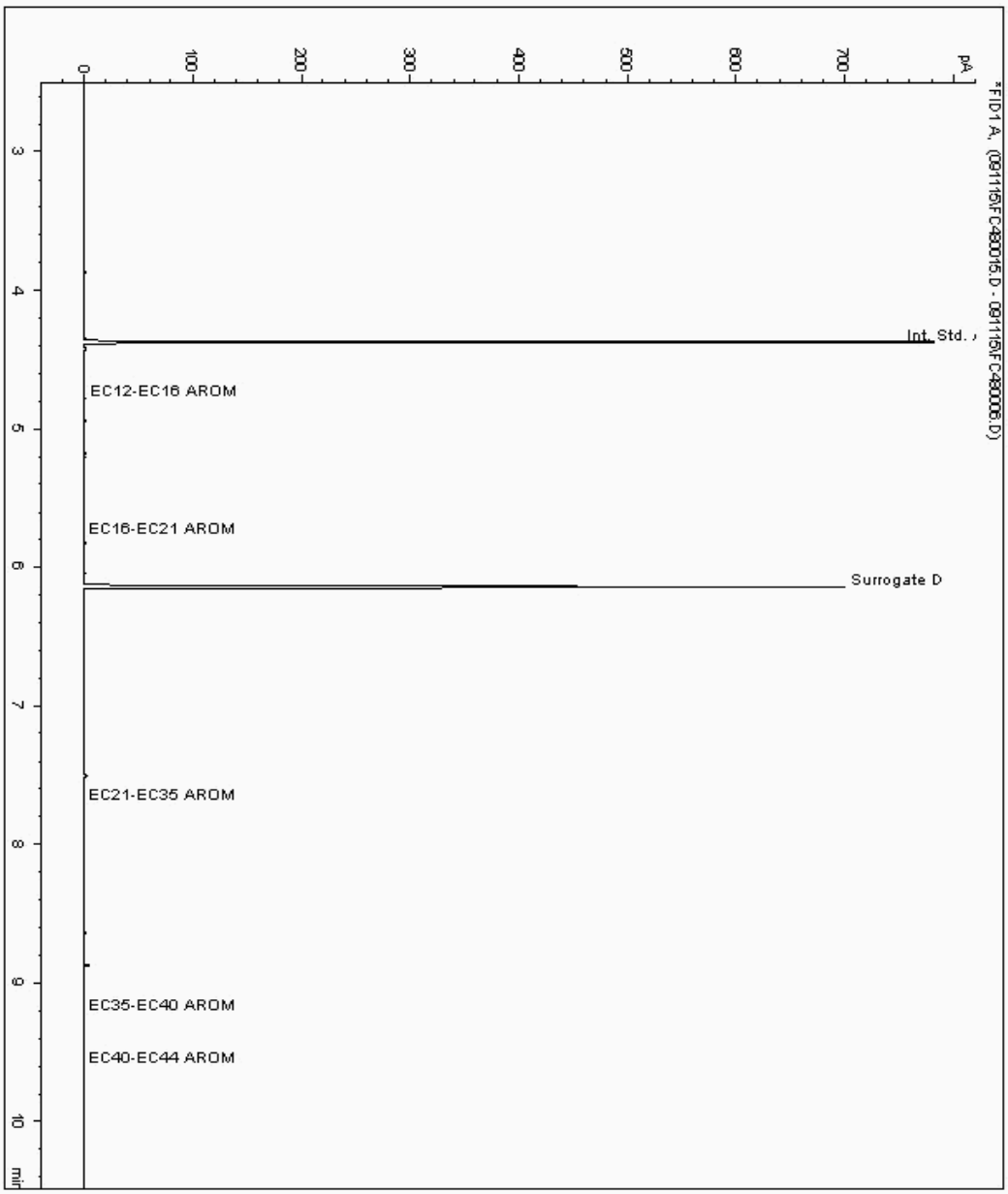
SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 12041835 **Sample ID :** BH3 **Depth :**

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 11416090-
Date Acquired : 11/09/2015 19:15:37 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

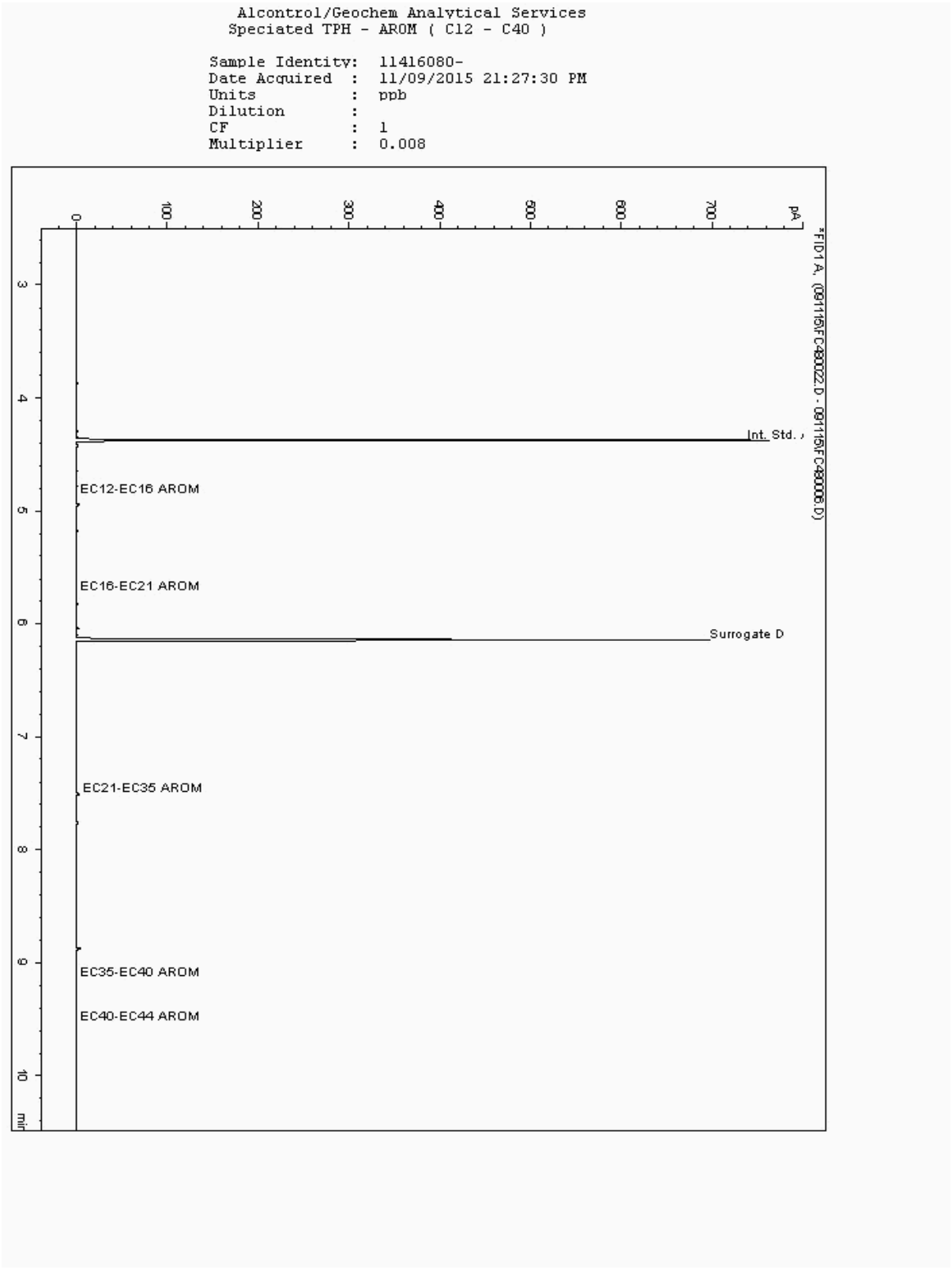
SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 12041844
Sample ID : BH5

Depth :



CERTIFICATE OF ANALYSIS

SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

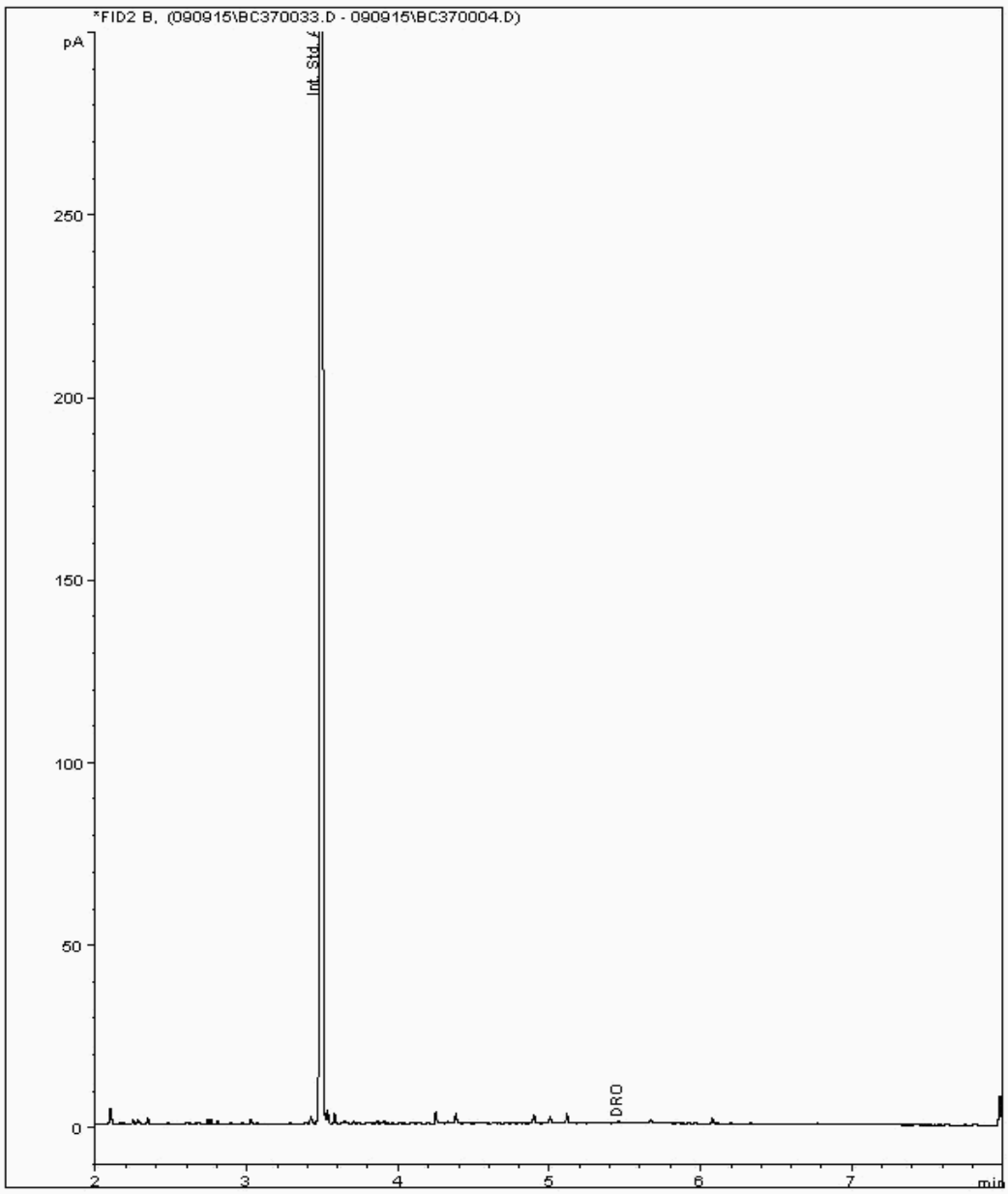
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 12010785
Sample ID : BH8

Depth :

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

Sample Identity: l1378749-
Date Acquired : 10/09/2015 03:40:25 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

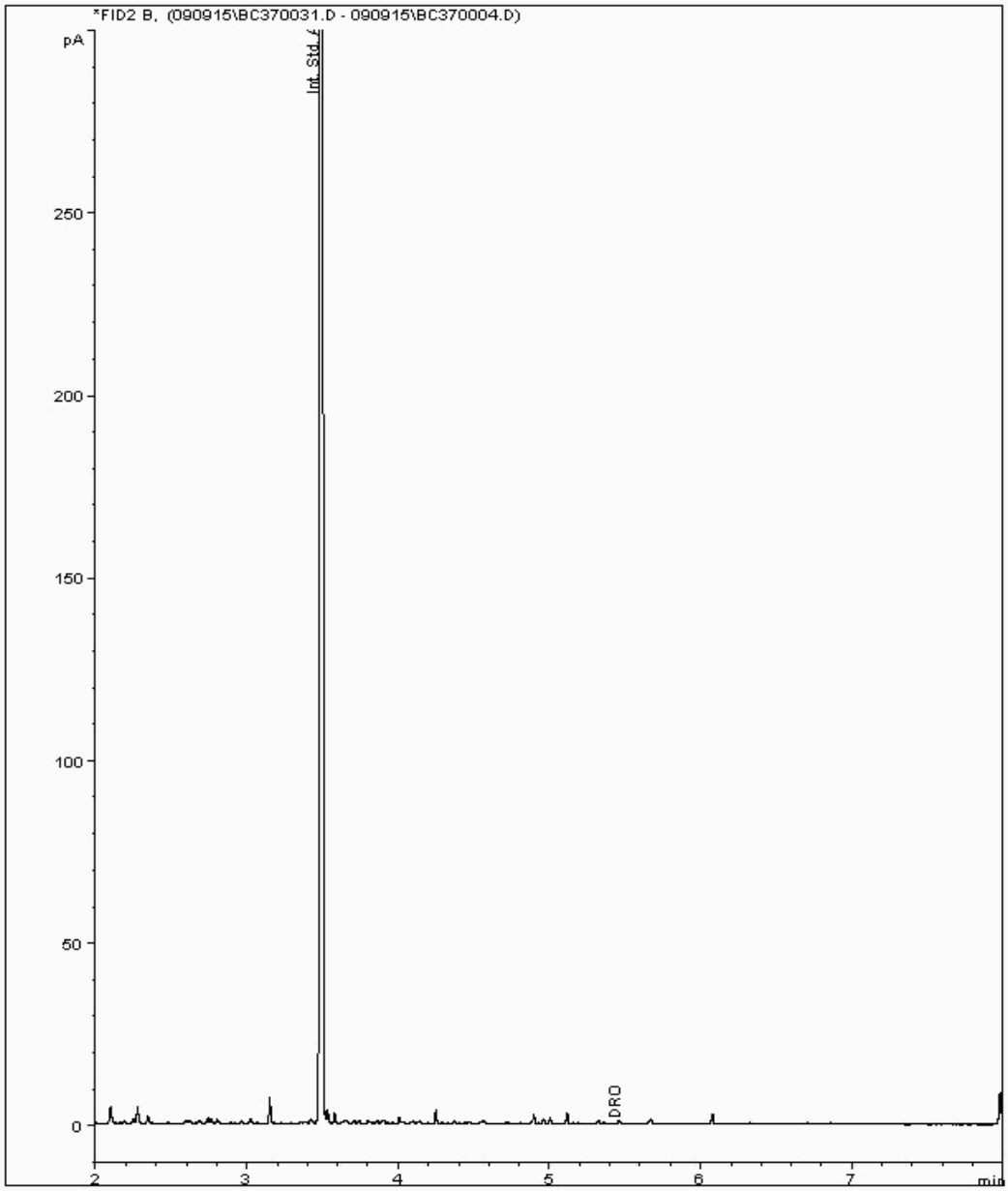
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 12010813
Sample ID : DUP01

Depth :

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

Sample Identity: 11378785-
Date Acquired : 10/09/2015 02:56:26 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

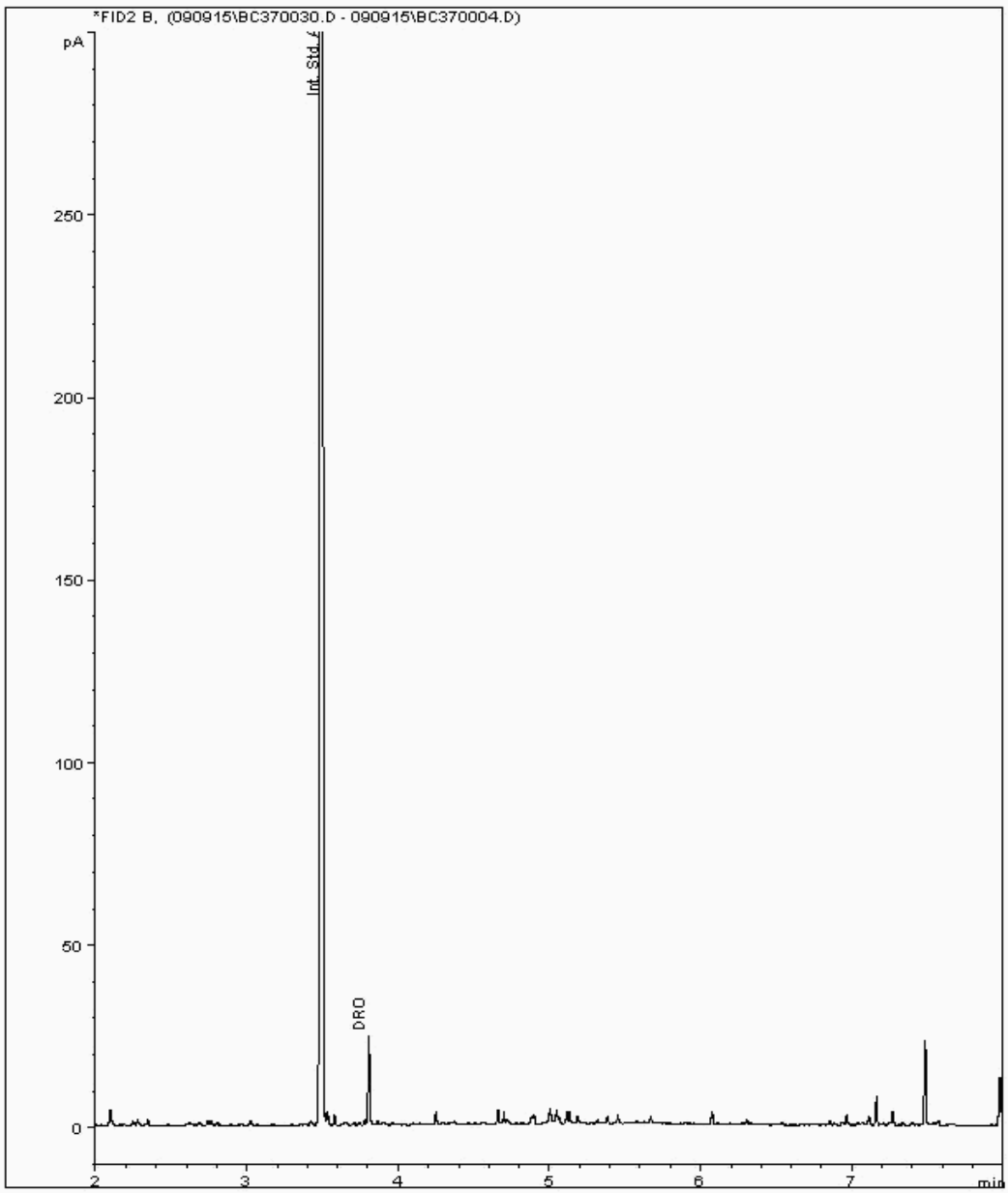
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 12010836
Sample ID : BH111

Depth :

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

Sample Identity: 11378767-
Date Acquired : 10/09/2015 02:34:21 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

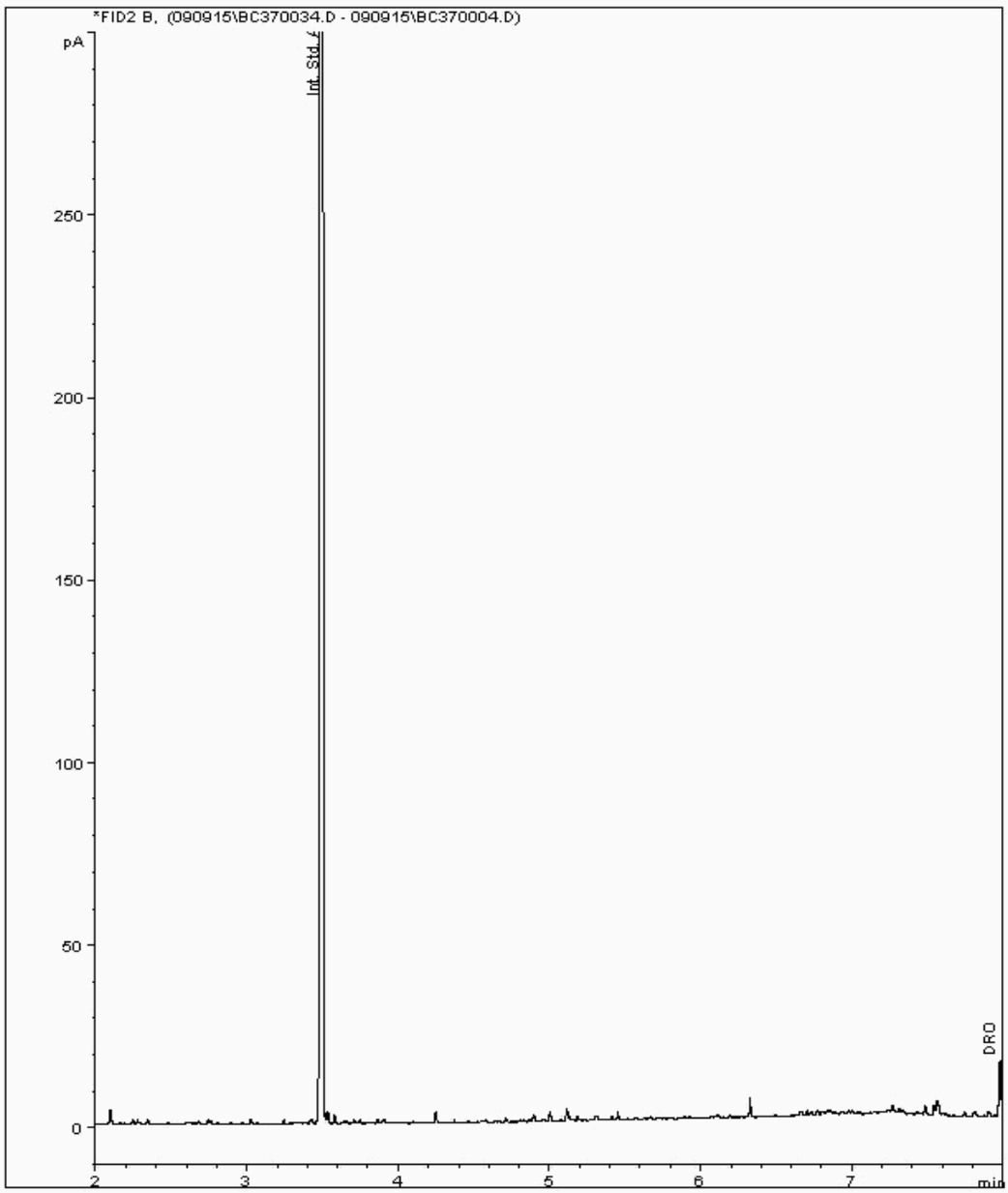
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 12010862
Sample ID : BH109

Depth :

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

Sample Identity: l1378728-
Date Acquired : 10/09/2015 04:02:28 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

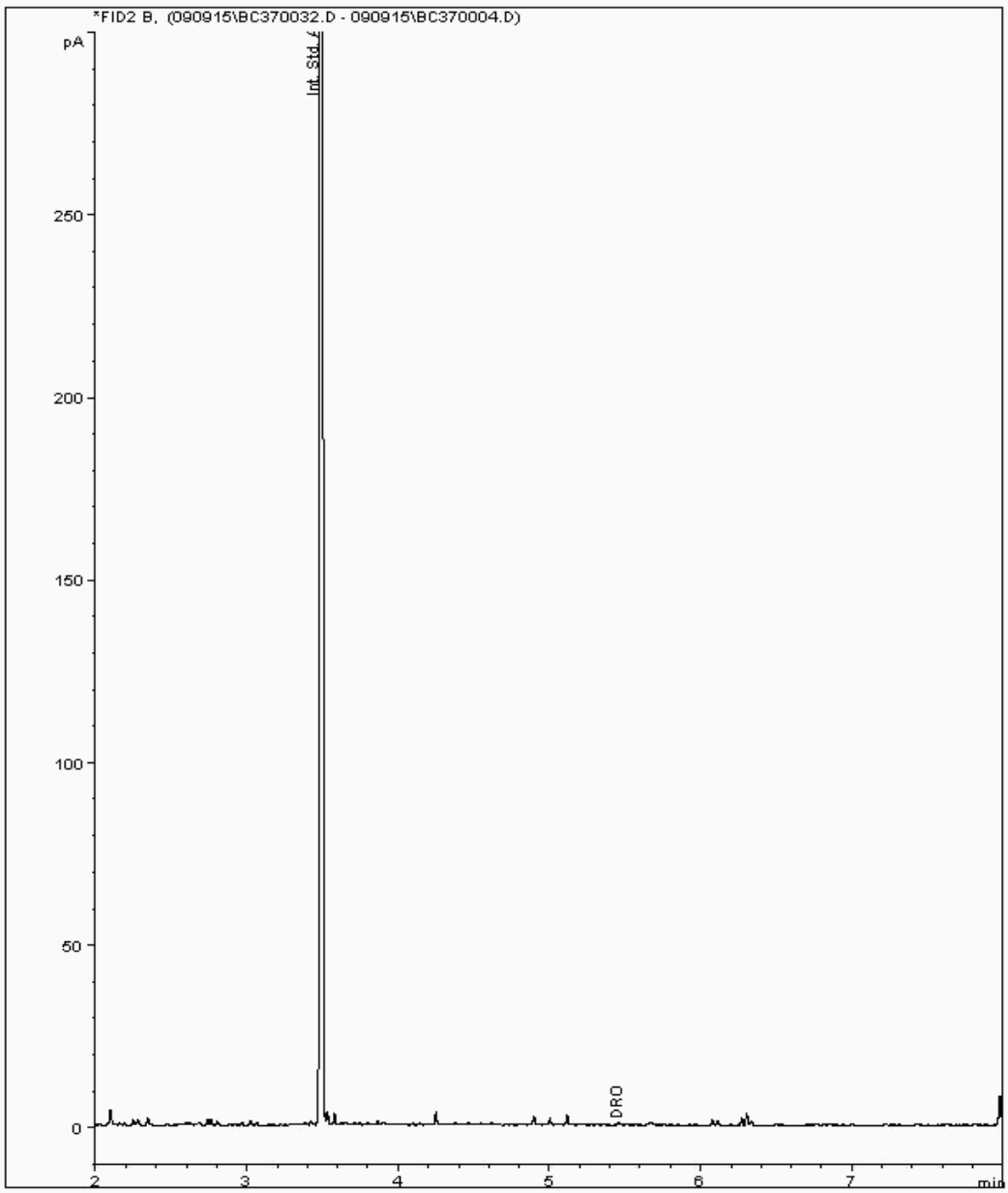
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 12010877
Sample ID : BH110

Depth :

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

Sample Identity: 11378714-
Date Acquired : 10/09/2015 03:18:35 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

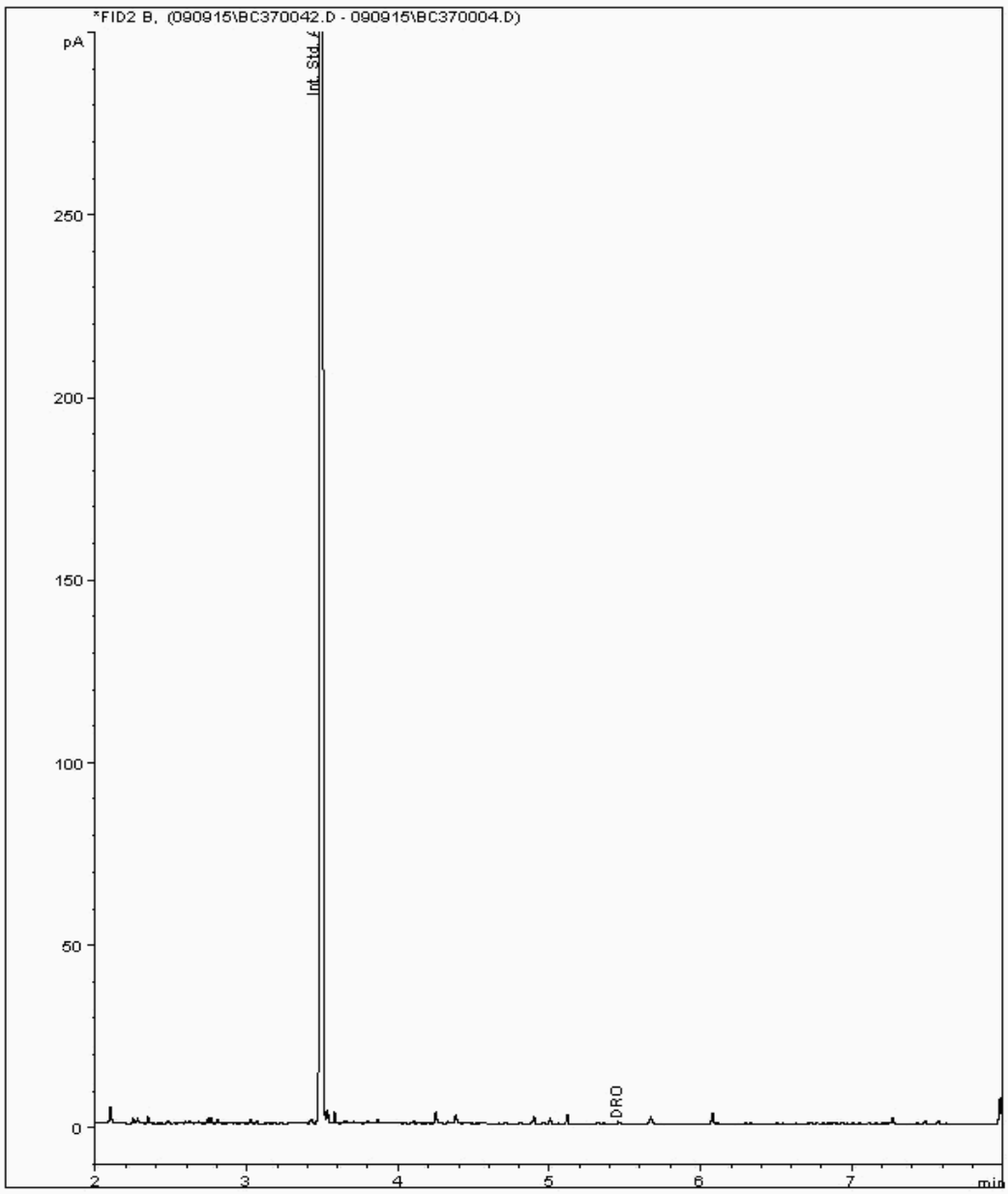
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 12012900
Sample ID : BH5

Depth :

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

Sample Identity: 11378677-
Date Acquired : 10/09/2015 06:59:22 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

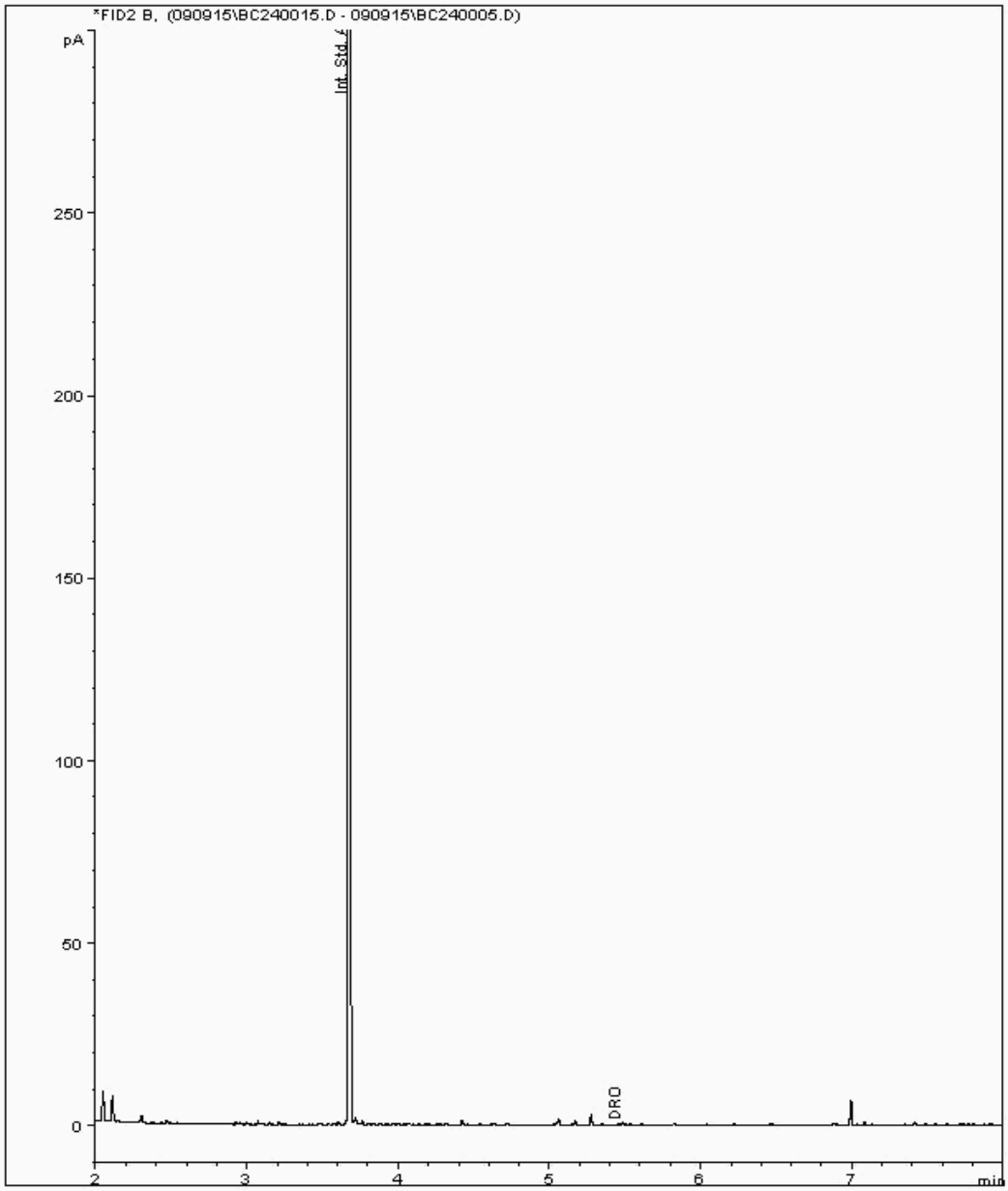
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 12012997
Sample ID : BH3

Depth :

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

Sample Identity: 11378700-
Date Acquired : 09/09/2015 21:21:25 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

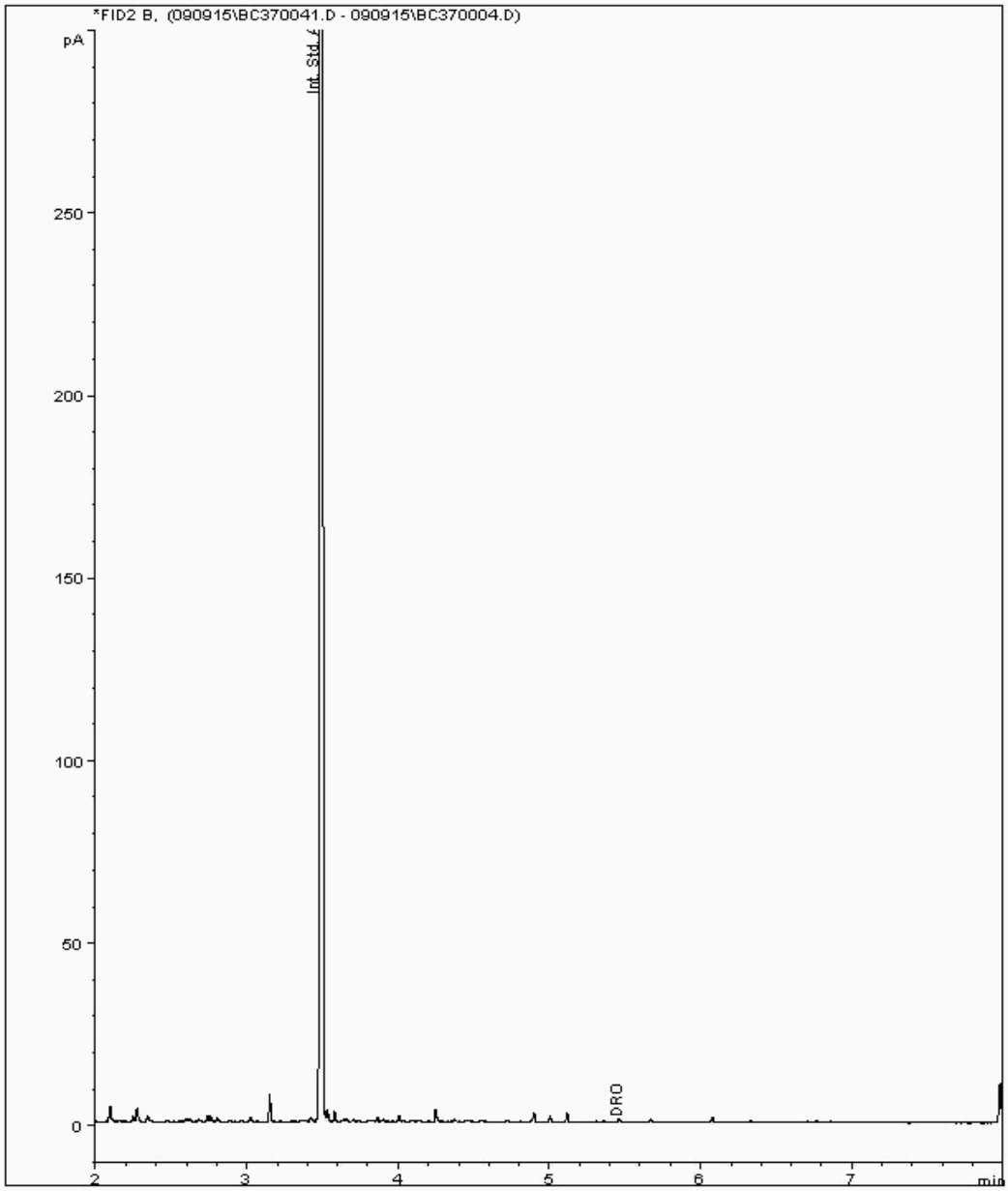
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 12013027
Sample ID : BH4

Depth :

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

Sample Identity: l1378662-
Date Acquired : 10/09/2015 06:37:21 PM
Units : mg/l

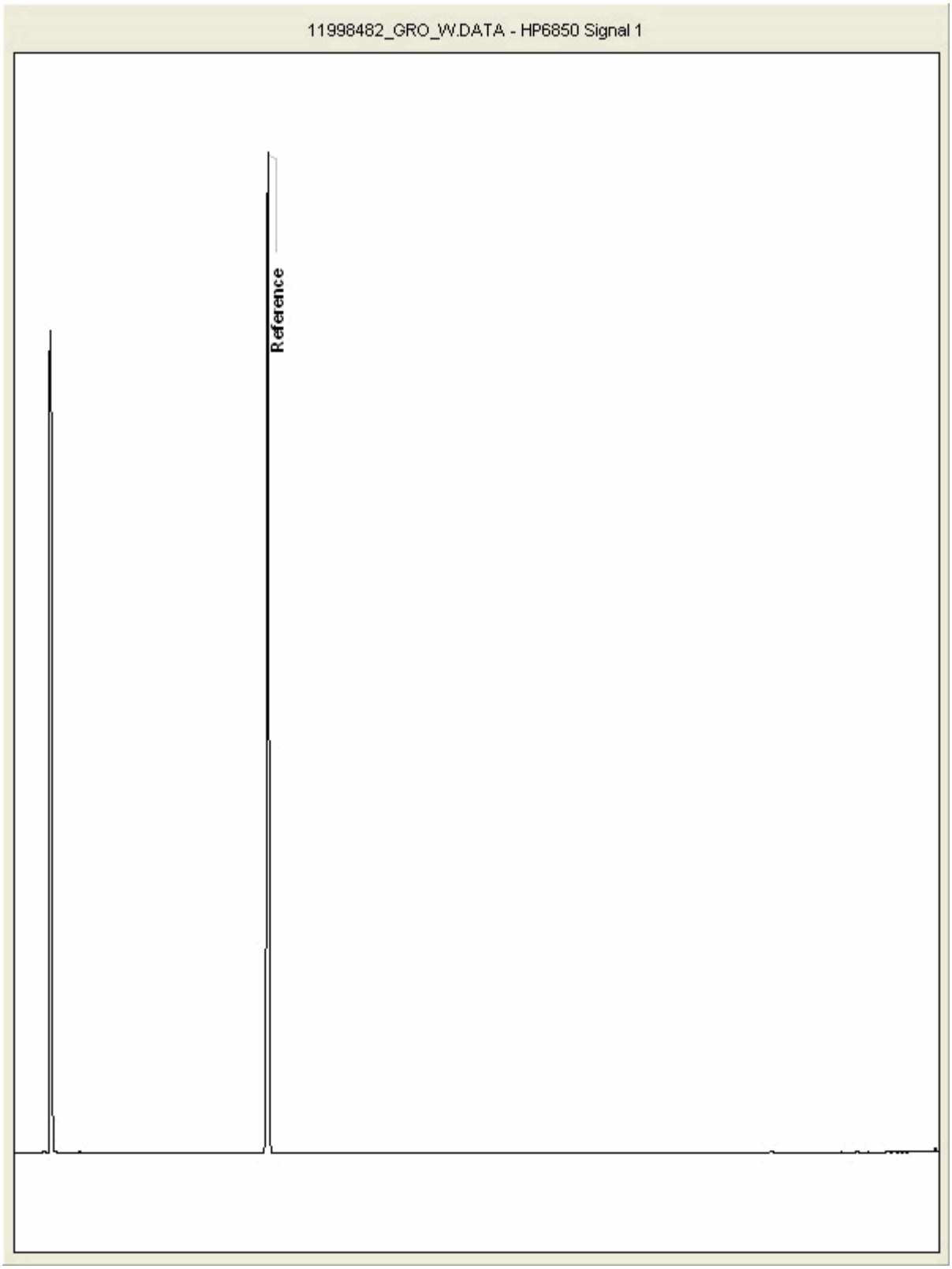


CERTIFICATE OF ANALYSIS

SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis:	GRO by GC-FID (W)	**Sample No :**	11998482	**Depth :**	
		Sample ID :	BH8		

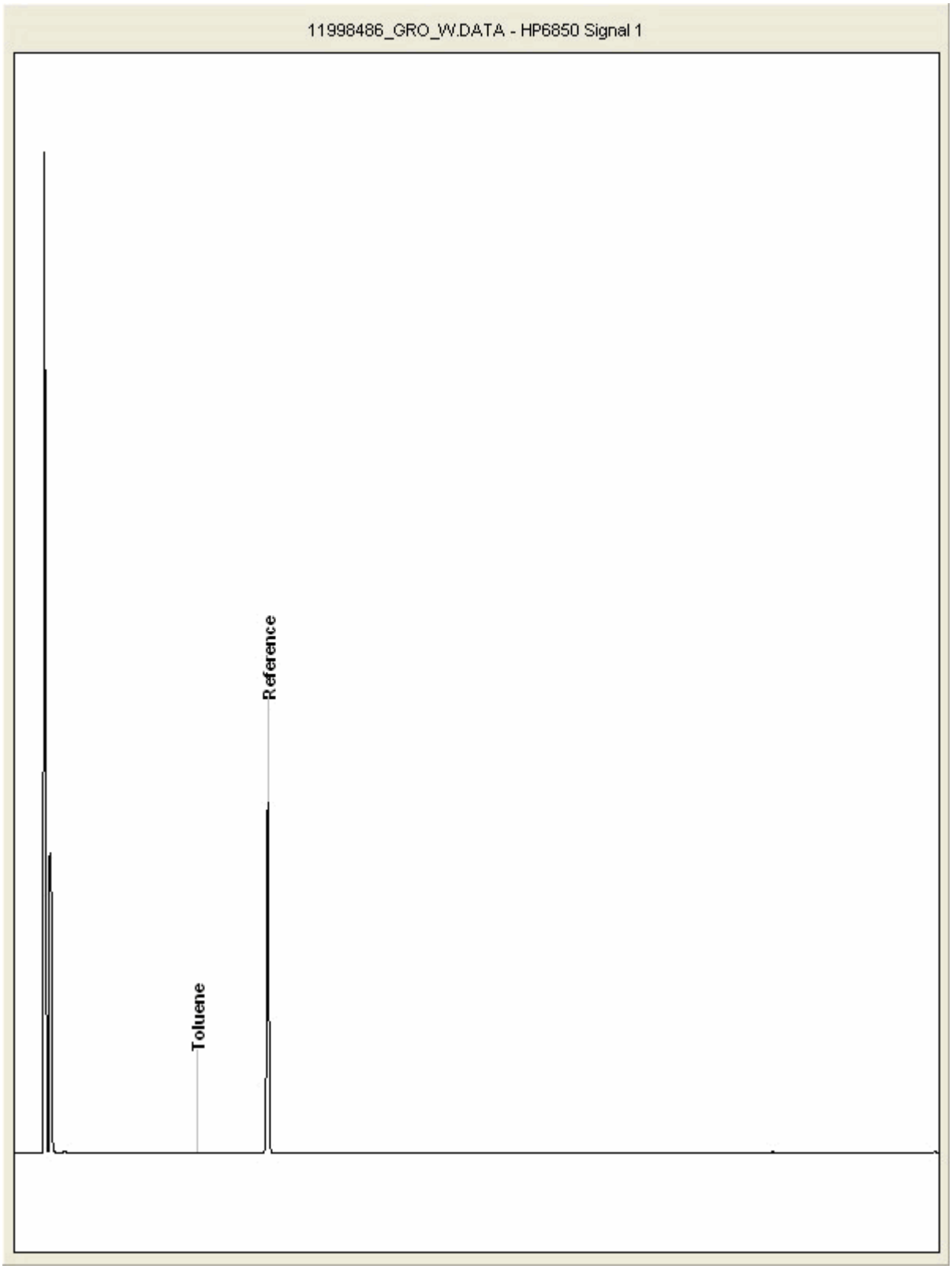


CERTIFICATE OF ANALYSIS

SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis:	GRO by GC-FID (W)	**Sample No :**	11998486	**Depth :**	
		Sample ID :	BH111		



CERTIFICATE OF ANALYSIS

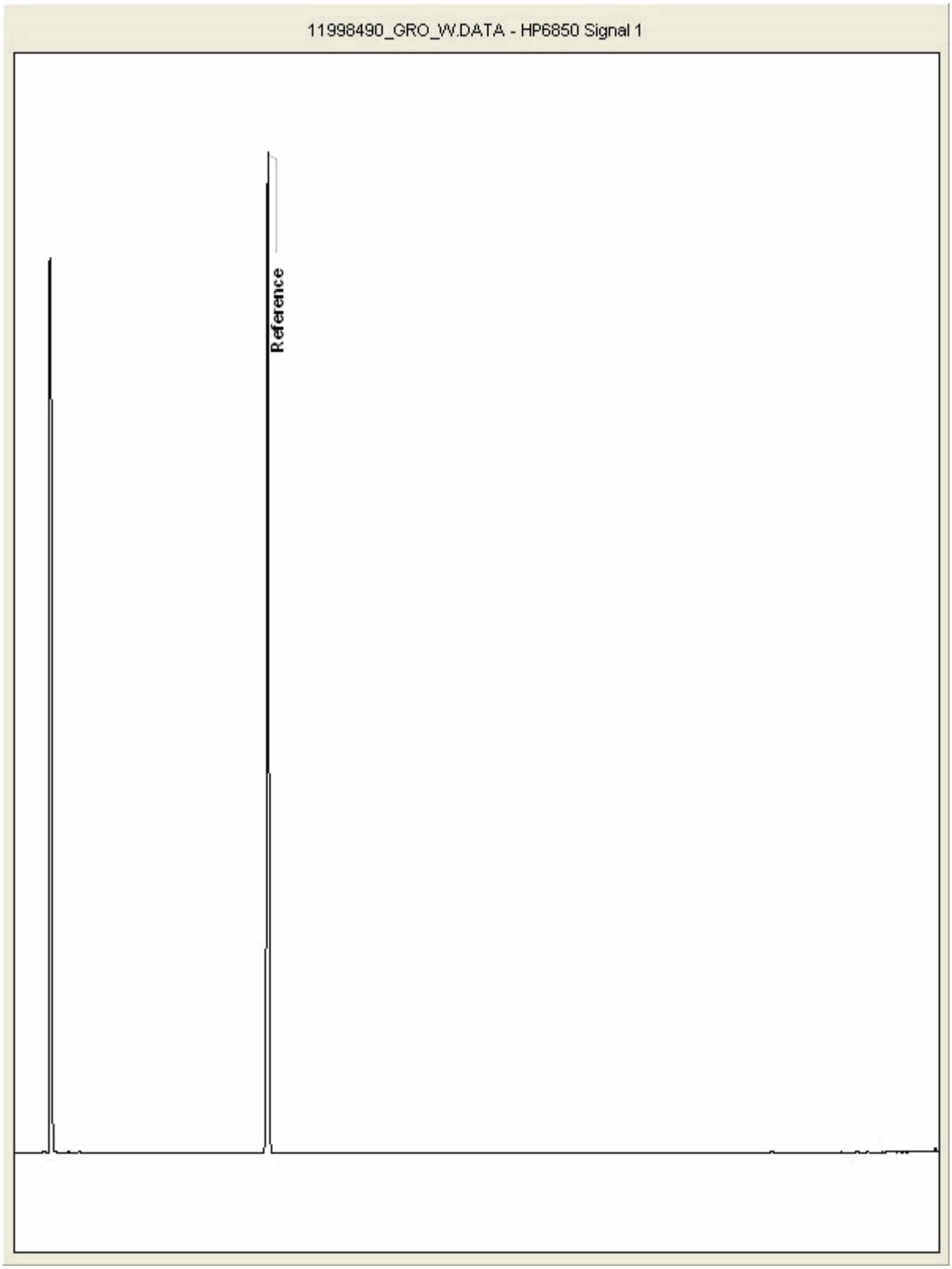
SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 11998490
Sample ID : BH109

Depth :



CERTIFICATE OF ANALYSIS

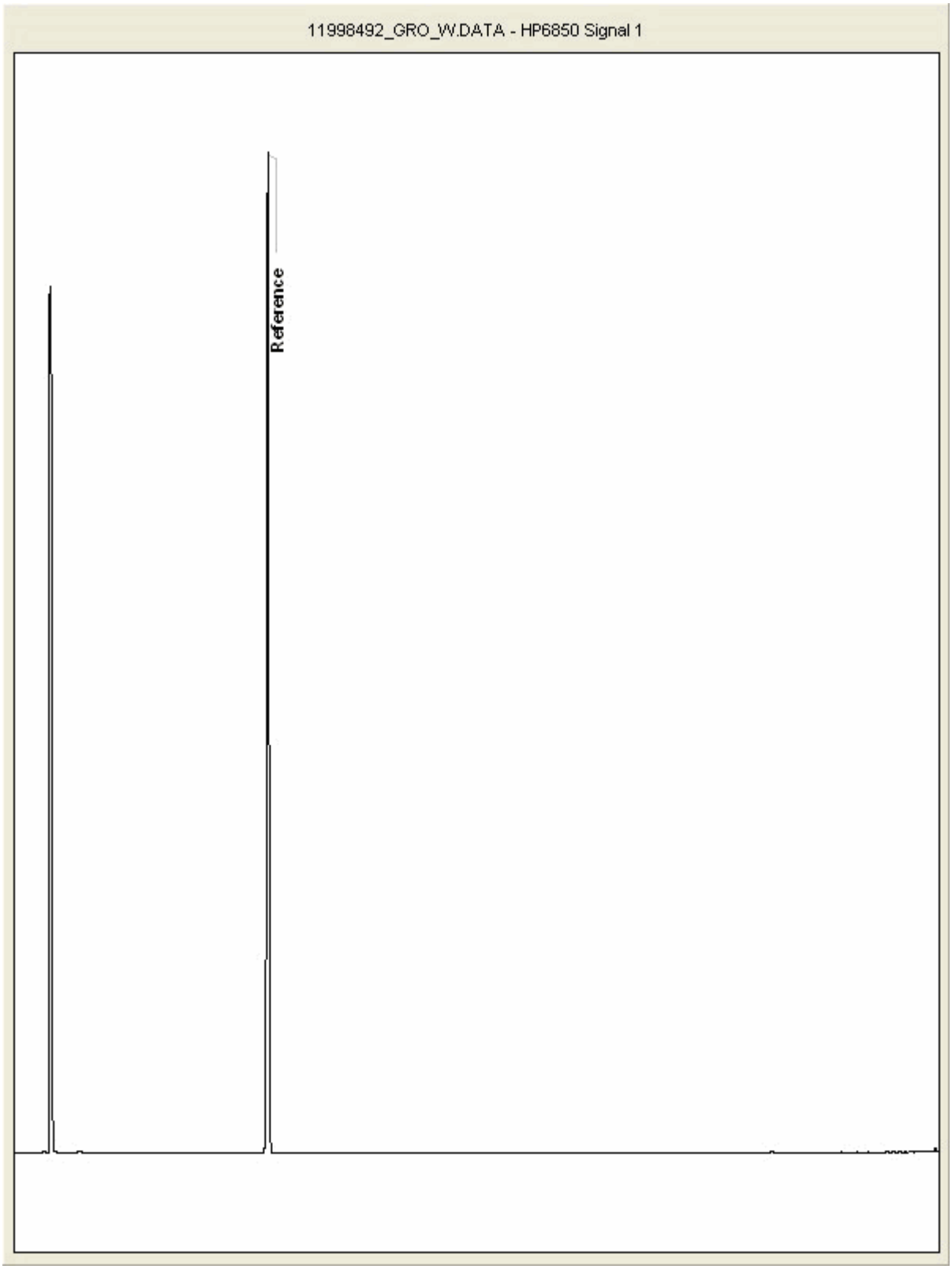
SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 11998492
Sample ID : BH110

Depth :

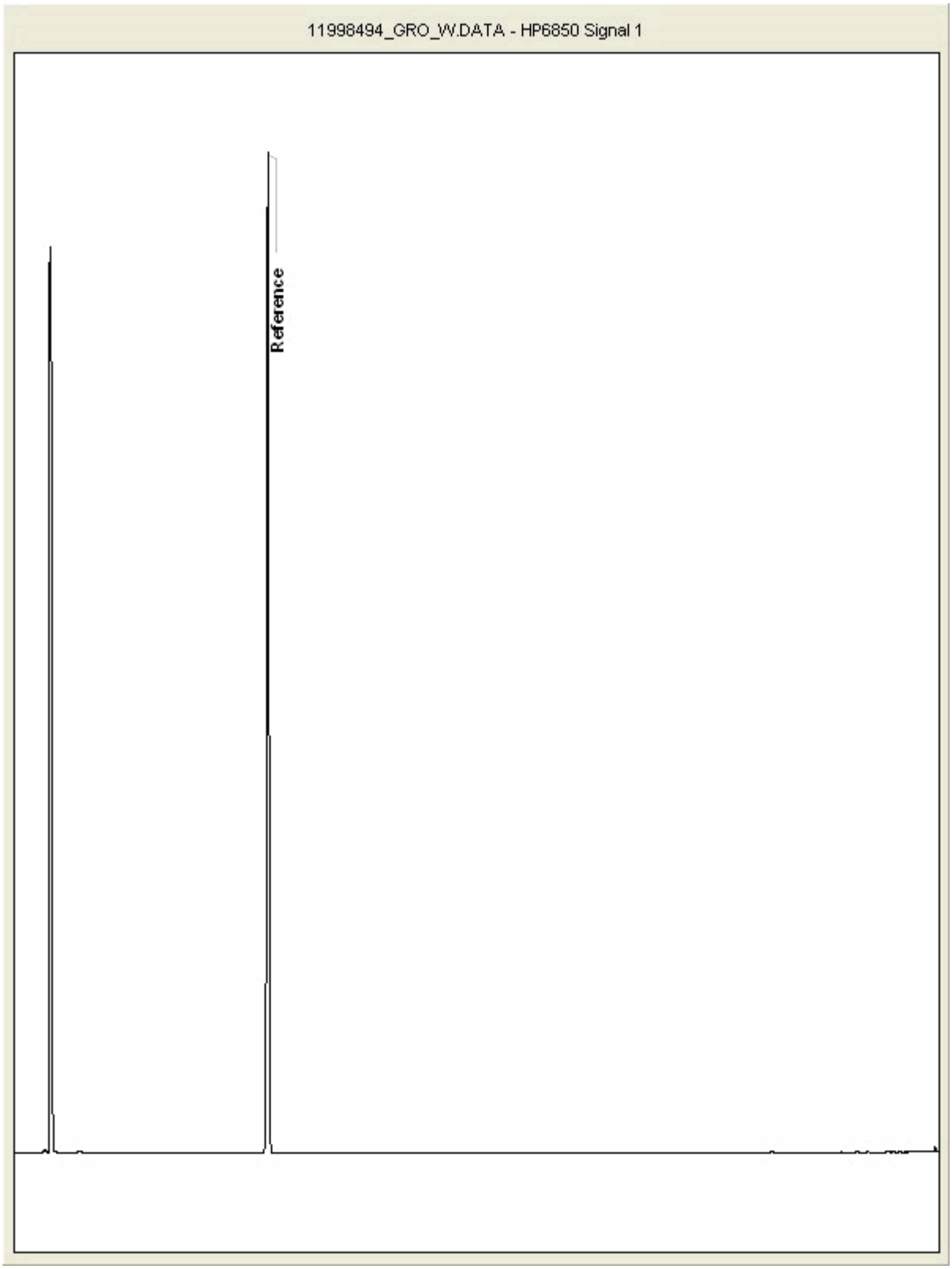


CERTIFICATE OF ANALYSIS

SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis:	GRO by GC-FID (W)	**Sample No :**	11998494	**Depth :**	
		Sample ID :	BH5		



CERTIFICATE OF ANALYSIS

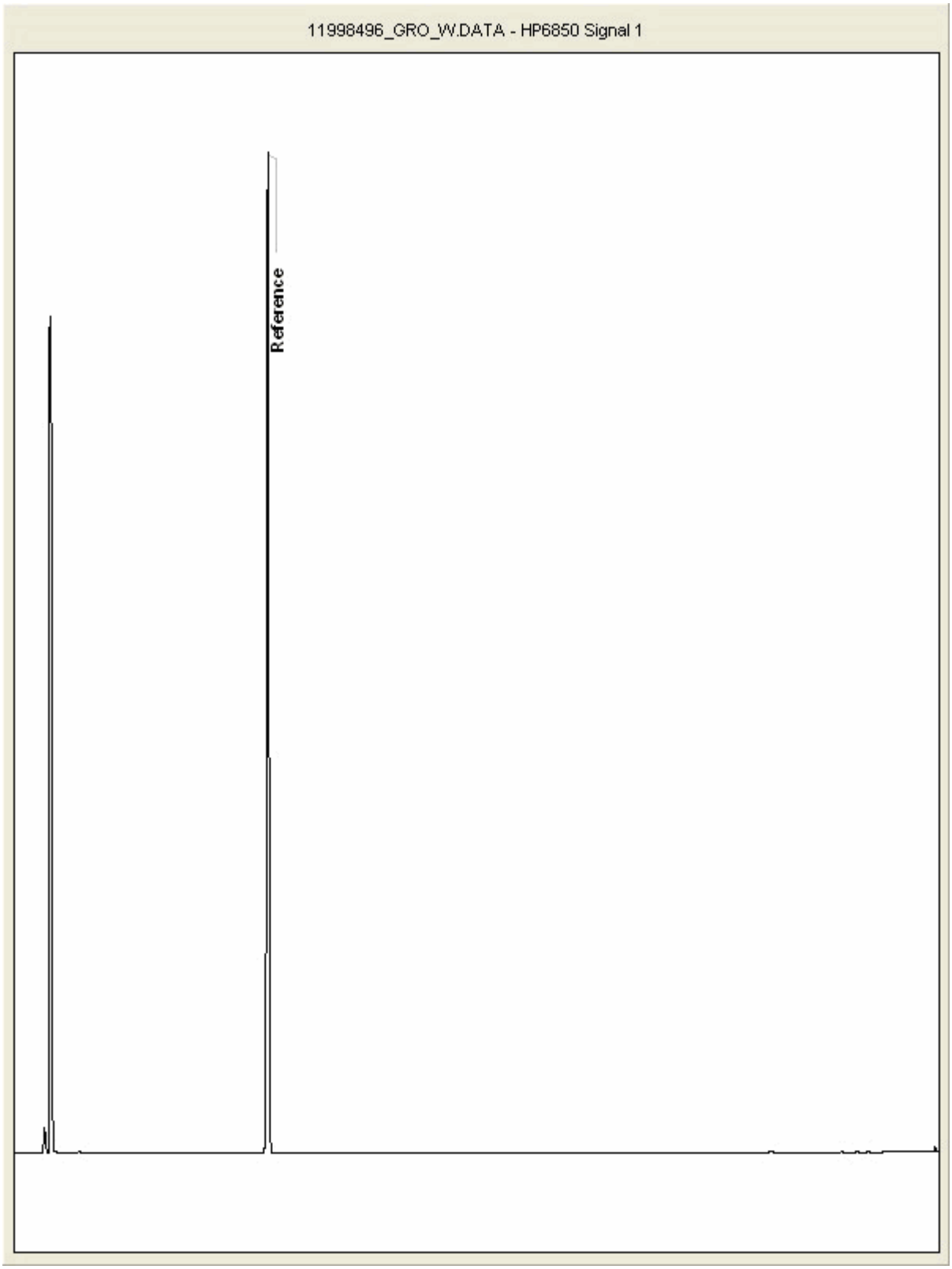
SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 11998496
Sample ID : BH3

Depth :



CERTIFICATE OF ANALYSIS

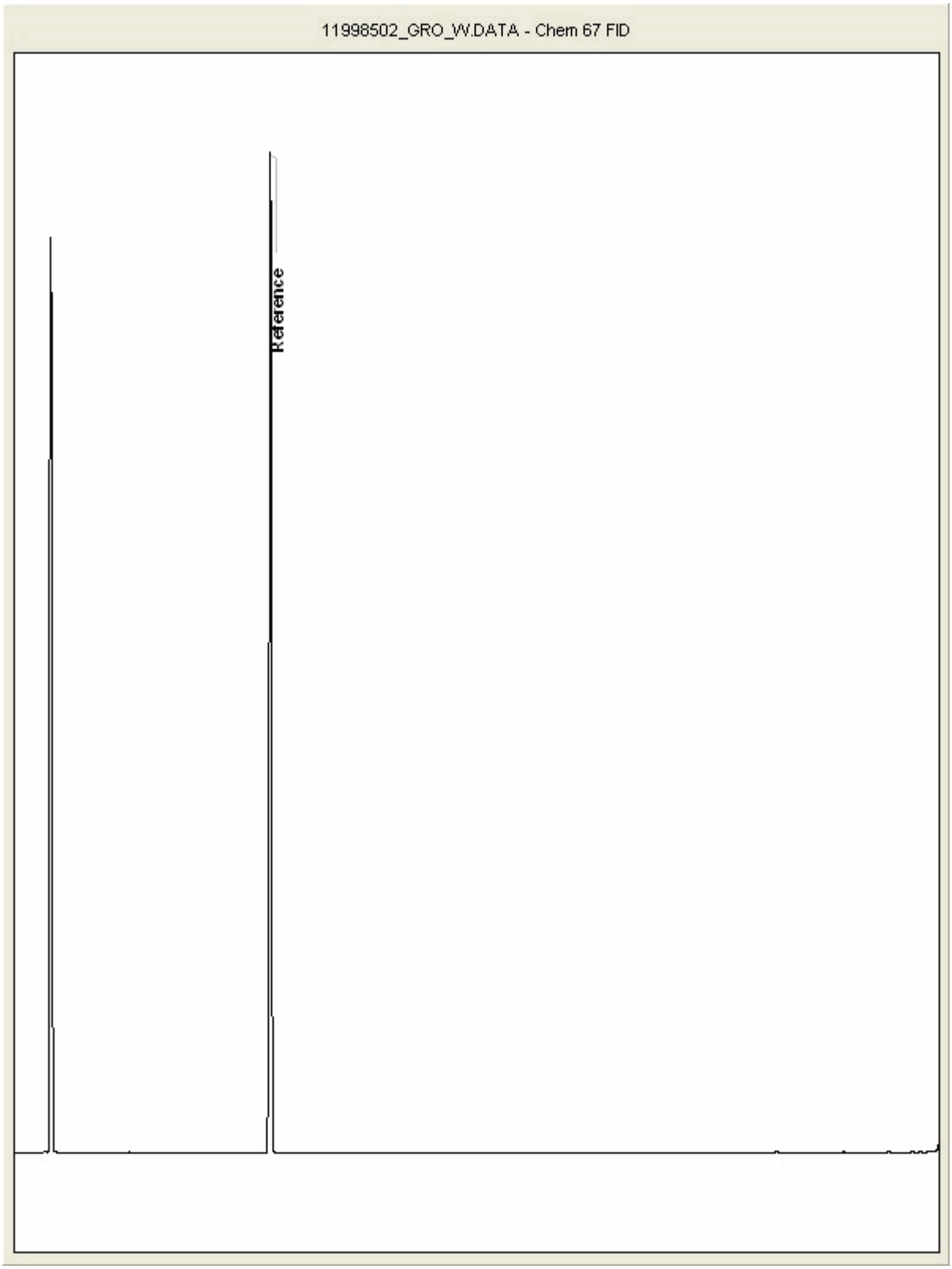
SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 11998502
Sample ID : BH4

Depth :



CERTIFICATE OF ANALYSIS

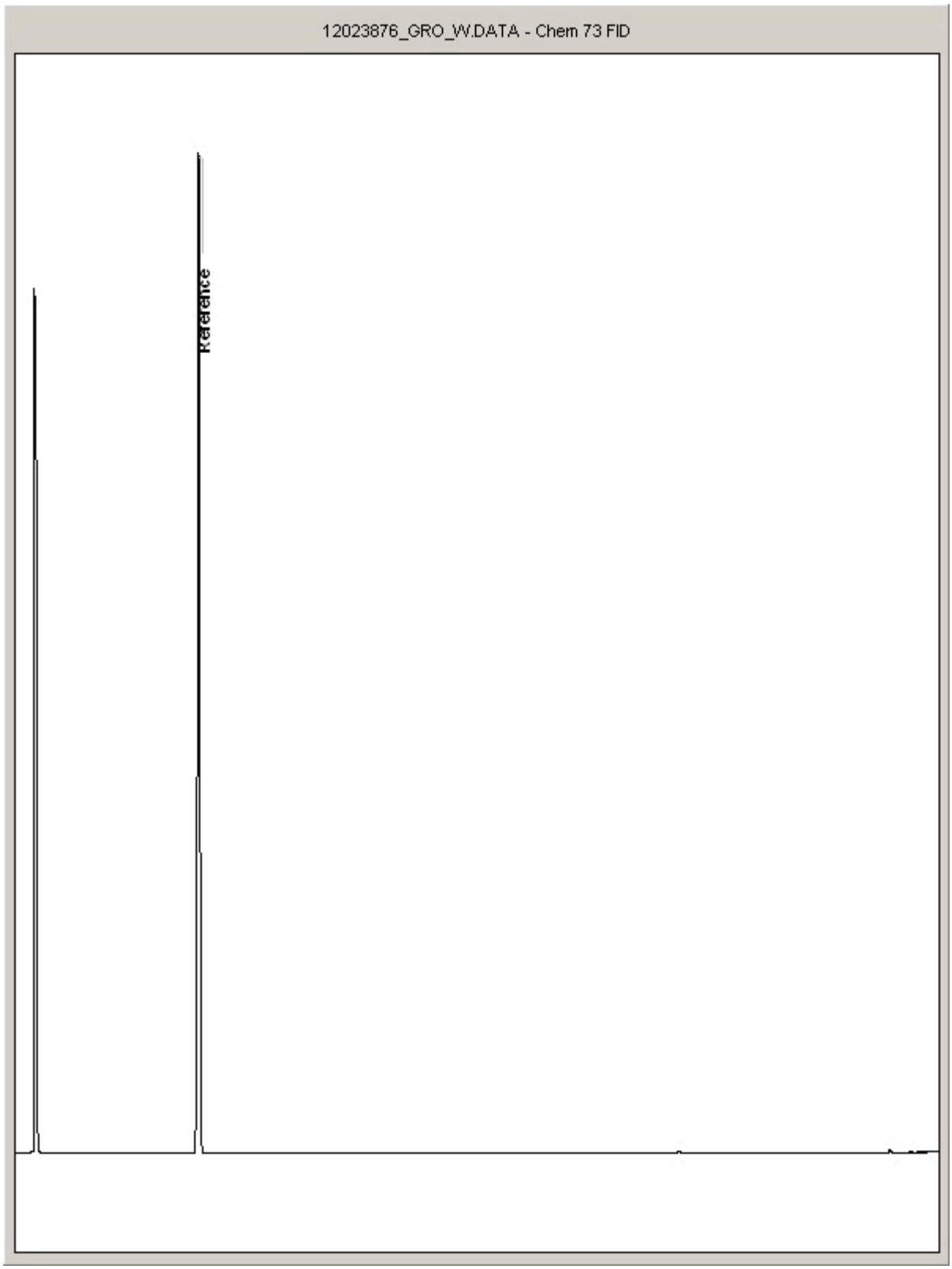
SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 12023876
Sample ID : DUP01

Depth :



CERTIFICATE OF ANALYSIS

SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Appendix

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

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

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

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

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

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

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

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

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

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

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

12. Results relate only to the items tested

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

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

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

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

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

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

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

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

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

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

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

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

SOLID MATRICES EXTRACTION SUMMARY

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

LIQUID MATRICES EXTRACTION SUMMARY

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

Identification of Asbestos in Bulk Materials

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

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

Visual Estimation Of Fibre Content

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

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

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

Last Updated : 2010/09/08

SDG:	150902-38	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329713
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Appendix

General

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

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

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

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

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

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

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

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

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

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

11. Results relate only to the items tested.

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

13. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%, they are generally wider for volatiles analysis, 50-150%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

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

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

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

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

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

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

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

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

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

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

Sample Deviations

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

Asbestos

Identification of Asbestos in Bulk Materials & Soils

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

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

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

Visual Estimation Of Fibre Content

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

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

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

ALcontrol Laboratories

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Website: www.alcontrol.com

AECOM
St. George's House
2nd Floor
5 St. George's Road
Wimbledon
Greater London
SW19 4DR

Attention: Gary Marshall

CERTIFICATE OF ANALYSIS

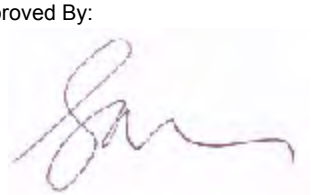
Date:	09 September 2015
Customer:	H_URS_WIM
Sample Delivery Group (SDG):	150903-66
Your Reference:	
Location:	Stag Brewery
Report No:	329161

We received 6 samples on Thursday September 03, 2015 and 6 of these samples were scheduled for analysis which was completed on Wednesday September 09, 2015. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

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

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

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
12003516	BH2			02/09/2015
12003511	BH7			01/09/2015
12003512	BH9			02/09/2015
12003513	BH10			01/09/2015
12003515	BH201A			02/09/2015
12003514	BH104B			02/09/2015

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

CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

LIQUID

Results Legend

- **X** – **Test**
- **N** – **No Determination Possible**

Lab Sample No(s)			12003516						
Customer Sample Reference			BH2						
AGS Reference									
Depth (m)									
Container			0.5l glass bottle (AL	250ml BOD (ALE21	500ml Plastic (ALE2	Dissolved Metals Pr	H2SO4 (ALE244)	HNO3 Filtered (ALE	Vial (ALE297)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 6					X		
Anions by Kone (w)	All	NDPs: 0 Tests: 6			X				
COD Unfiltered	All	NDPs: 0 Tests: 6		X					
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 6						X	
Dissolved W, Nb and Zr by ICP-MS	All	NDPs: 0 Tests: 6						X	
EPH (DRO) (C10-C40) Aqueous (W)	All	NDPs: 0 Tests: 6	X						
GRO by GC-FID (W)	All	NDPs: 0 Tests: 6							X
Mercury Dissolved	All	NDPs: 0 Tests: 6				X			
pH Value	All	NDPs: 0 Tests: 6			X				
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 6	X						
Total EPH (aq)	All	NDPs: 0 Tests: 6	X						
VOC MS (W)	All	NDPs: 0 Tests: 6							X

Lab Sample No(s)	12003511						
Customer Sample Reference	BH7						
AGS Reference							
Depth (m)							
Container	0.5l glass bottle (AL	250ml BOD (ALE21	500ml Plastic (ALE2	Dissolved Metals Pr	H2SO4 (ALE244)	HNO3 Filtered (ALE	Vial (ALE297)
Ammoniacal Nitrogen					X		
Anions by Kone (w)			X				
COD Unfiltered		X					
Dissolved Metals by ICP-MS						X	
Dissolved W, Nb and Zr by ICP-MS						X	
EPH (DRO) (C10-C40) Aqueous (W)	X						
GRO by GC-FID (W)							X
Mercury Dissolved				X			
pH Value			X				
SVOC MS (W) - Aqueous	X						
Total EPH (aq)	X						
VOC MS (W)							X

Lab Sample No(s)	12003512						
Customer Sample Reference	BH9						
AGS Reference							
Depth (m)							
Container	0.5l glass bottle (AL	250ml BOD (ALE21	500ml Plastic (ALE2	Dissolved Metals Pr	H2SO4 (ALE244)	HNO3 Filtered (ALE	Vial (ALE297)
Ammoniacal Nitrogen					X		
Anions by Kone (w)			X				
COD Unfiltered		X					
Dissolved Metals by ICP-MS						X	
Dissolved W, Nb and Zr by ICP-MS						X	
EPH (DRO) (C10-C40) Aqueous (W)	X						
GRO by GC-FID (W)							X
Mercury Dissolved				X			
pH Value			X				
SVOC MS (W) - Aqueous	X						
Total EPH (aq)	X						
VOC MS (W)							X

Lab Sample No(s)	12003513						
Customer Sample Reference	BH10						
AGS Reference							
Depth (m)							
Container	0.5l glass bottle (AL	250ml BOD (ALE21	500ml Plastic (ALE2	Dissolved Metals Pr	H2SO4 (ALE244)	HNO3 Filtered (ALE	Vial (ALE297)
Ammoniacal Nitrogen					X		
Anions by Kone (w)			X				
COD Unfiltered		X					
Dissolved Metals by ICP-MS						X	
Dissolved W, Nb and Zr by ICP-MS						X	
EPH (DRO) (C10-C40) Aqueous (W)	X						
GRO by GC-FID (W)							X
Mercury Dissolved				X			
pH Value			X				
SVOC MS (W) - Aqueous	X						
Total EPH (aq)	X						
VOC MS (W)							X

Lab Sample No(s)	12003515						
Customer Sample Reference	BH201A						
AGS Reference							
Depth (m)							
Container	0.5l glass bottle (AL	250ml BOD (ALE21	500ml Plastic (ALE2	Dissolved Metals Pr	H2SO4 (ALE244)	HNO3 Filtered (ALE	Vial (ALE297)
Ammoniacal Nitrogen					X		
Anions by Kone (w)			X				
COD Unfiltered		X					
Dissolved Metals by ICP-MS						X	
Dissolved W, Nb and Zr by ICP-MS						X	
EPH (DRO) (C10-C40) Aqueous (W)	X						
GRO by GC-FID (W)							X
Mercury Dissolved				X			
pH Value			X				
SVOC MS (W) - Aqueous	X						
Total EPH (aq)	X						
VOC MS (W)							X

Lab Sample No(s)	12003514				
Customer Sample Reference	BH104B				
AGS Reference					
Depth (m)					
Container	0.5l glass bottle (AL	250ml BOD (ALE21	500ml Plastic (ALE2	Dissolved Metals Pr	H2SO4 (ALE244)
Ammoniacal Nitrogen					X
Anions by Kone (w)			X		
COD Unfiltered		X			
Dissolved Metals by ICP-MS					
Dissolved W, Nb and Zr by ICP-MS					
EPH (DRO) (C10-C40) Aqueous (W)	X				
GRO by GC-FID (W)					
Mercury Dissolved				X	
pH Value			X		
SVOC MS (W) - Aqueous	X				
Total EPH (aq)	X				
VOC MS (W)					

CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	
			12003514	BH104B			HNO3 Filtered (ALE	Vial (ALE297)
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 6					X	
Dissolved W, Nb and Zr by ICP-MS	All	NDPs: 0 Tests: 6					X	
GRO by GC-FID (W)	All	NDPs: 0 Tests: 6						X
VOC MS (W)	All	NDPs: 0 Tests: 6						X

CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Results Legend

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

Component	LOD/Units	Method	Customer Sample R	BH2	BH7	BH9	BH10	BH201A	BH104B
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	02/09/2015	01/09/2015	02/09/2015	01/09/2015	02/09/2015	02/09/2015
			Sampled Time	.	.	.	.	.	.
			Date Received	03/09/2015	03/09/2015	03/09/2015	03/09/2015	03/09/2015	03/09/2015
			SDG Ref	150903-66	150903-66	150903-66	150903-66	150903-66	150903-66
			Lab Sample No.(s)	12003516	12003511	12003512	12003513	12003515	12003514
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		0.268 #	0.707 #	5.66 #	<0.2 #	<0.2 #	<0.2 #
Ammoniacal Nitrogen as NH4	<0.3 mg/l	TM099		0.345 #	0.909 #	7.28 #	<0.3 #	<0.3 #	<0.3 #
COD, unfiltered	<7 mg/l	TM107		<7 #	10.1 #	3330 #	<7 #	<7 #	7.65 #
Antimony (diss.filt)	<0.16 µg/l	TM152		0.171	0.681	2.06	0.27	0.306	0.172
Arsenic (diss.filt)	<0.12 µg/l	TM152		39.4 #	45.4 #	14.4 #	3.79 #	6.51 #	17.3 #
Barium (diss.filt)	<0.03 µg/l	TM152		116 #	73.4 #	39.9 #	15.4 #	79.1 #	66 #
Beryllium (diss.filt)	<0.07 µg/l	TM152		<0.07 #	<0.07 #	<0.07 #	<0.07 #	<0.07 #	<0.07 #
Boron (diss.filt)	<9.4 µg/l	TM152		133 #	138 #	27.8 #	82.3 #	106 #	140 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	0.228 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		2.23 #	5.24 #	7.52 #	1.21 #	2.27 #	1.71 #
Cobalt (diss.filt)	<0.06 µg/l	TM152		0.3 #	3.29 #	9.27 #	0.337 #	11.8 #	1.25 #
Copper (diss.filt)	<0.85 µg/l	TM152		1.95 #	1.59 #	61.3 #	1.16 #	1.08 #	1.74 #
Lead (diss.filt)	<0.02 µg/l	TM152		0.059 #	0.072 #	22.8 #	<0.02 #	0.098 #	0.057 #
Manganese (diss.filt)	<0.04 µg/l	TM152		772 #	1200 #	983 #	23 #	1180 #	665 #
Nickel (diss.filt)	<0.15 µg/l	TM152		6.63 #	8.43 #	12.3 #	2.26 #	18.4 #	8.43 #
Selenium (diss.filt)	<0.39 µg/l	TM152		9.71 #	1.13 #	1.87 #	1.86 #	1.76 #	7.19 #
Thallium (diss.filt)	<0.96 µg/l	TM152		<0.96	<0.96	<0.96	<0.96	<0.96	<0.96
Vanadium (diss.filt)	<0.24 µg/l	TM152		0.657 #	2.35 #	7.67 #	0.759 #	0.941 #	0.67 #
Zinc (diss.filt)	<0.41 µg/l	TM152		15.7 #	11.2 #	280 #	1.27 #	17.5 #	11.9 #
EPH Range >C10 - C40 (aq)	<46 µg/l	TM172		<46 #	<46 #	1430 #	<46 #	<46 #	<46 #
Total EPH (C6-C40) (aq)	<100 µg/l	TM172		<100	<100	1430	<100	<100	<100
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	0.0171 #	<0.01 #	<0.01 #	<0.01 #
Sulphate	<2 mg/l	TM184		457 #	74.5 #	<2 #	70.1 #	82.2 #	287 #
Phosphate (ortho) as PO4	<0.05 mg/l	TM184		<0.05 #	0.07 #	14.1 #	4.46 #	0.056 #	<0.05 #
Nitrate as NO3	<0.3 mg/l	TM184		<0.3 #	0.926 #	<0.3 #	18.7 #	9.17 #	2.01 #
pH	<1 pH Units	TM256		7.59 #	7.9 #	7.55 #	7.56 #	8.09 #	7.22 #
Silver (diss.filt)	<1.5 µg/l	TM283		<1.5	<1.5	<1.5	<1.5	<1.5	<1.5

CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
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(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH2	BH7	BH9	BH10	BH201A	BH104B
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	02/09/2015	01/09/2015	02/09/2015	01/09/2015	02/09/2015	02/09/2015
			Sampled Time	.	.	.	.	.	.
			Date Received	03/09/2015	03/09/2015	03/09/2015	03/09/2015	03/09/2015	03/09/2015
			SDG Ref	150903-66	150903-66	150903-66	150903-66	150903-66	150903-66
			Lab Sample No.(s)	12003516	12003511	12003512	12003513	12003515	12003514
			AGS Reference						
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		<7 #	<7 #	<7 #	<7 #	<7 #	<7 #
Toluene	<4 µg/l	TM245		<4 #	<4 #	<4 #	<4 #	<4 #	<4 #
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	<8 #	<8 #	<8 #	<8 #
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	<28	<28	<28	<28
GRO >C5-C10	<10 µg/l	TM245		<10	<10	281	<10	<10	<10
EPH (C6-C10)	<100 µg/l	TM245		<100	<100	<100		<100	<100

CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
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Component	LOD/Units	Method	Customer Sample R	BH2	BH7	BH9	BH10	BH201A	BH104B
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	02/09/2015	01/09/2015	02/09/2015	01/09/2015	02/09/2015	02/09/2015
			Sampled Time	.	.	.	.	.	.
			Date Received	03/09/2015	03/09/2015	03/09/2015	03/09/2015	03/09/2015	03/09/2015
			SDG Ref	150903-66	150903-66	150903-66	150903-66	150903-66	150903-66
			Lab Sample No.(s)	12003516	12003511	12003512	12003513	12003515	12003514
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1	<1	<4	<1	<1	<1
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<1	<4	<1	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	172 #	<1 #	<1 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<1	<4	<1	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
Acenaphthylene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
Acenaphthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
Anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<2 #	<2 #	<8 #	<2 #	<2 #	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

SVOC MS (W) - Aqueous

Results Legend

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aq	Aqueous / settled sample.
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Component	LOD/Units	Method	Customer Sample R	BH2	BH7	BH9	BH10	BH201A	BH104B
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	02/09/2015	01/09/2015	02/09/2015	01/09/2015	02/09/2015	02/09/2015
			Sampled Time	.	.	.	.	.	.
			Date Received	03/09/2015	03/09/2015	03/09/2015	03/09/2015	03/09/2015	03/09/2015
			SDG Ref	150903-66	150903-66	150903-66	150903-66	150903-66	150903-66
			Lab Sample No.(s)	12003516	12003511	12003512	12003513	12003515	12003514
			AGS Reference						
Benzo(a)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
Benzo(b)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	6.42 #	<1 #	<1 #	<1 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
Benzo(a)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	4.69 #	<1 #	<1 #	<1 #
Benzo(g,h,i)perylene (aq)	<1 µg/l	TM176		<1 #	<1 #	4.05 #	<1 #	<1 #	<1 #
Carbazole (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
Chrysene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
Dibenzo(a,h)anthracene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<5 #	<20 #	<5 #	<5 #	<5 #
Fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	6.12 #	<1 #	<1 #	<1 #
Fluorene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<1	<4	<1	<1	<1
Phenol (aq)	<1 µg/l	TM176		<1	<1	10.7	<1	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
Naphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
Isophorone (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<1	<4	<1	<1	<1
Phenanthrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<4 #	<1 #	<1 #	<1 #
Pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	4.78 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

VOC MS (W)

Results Legend

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Component	LOD/Units	Method	Customer Sample R	BH2	BH7	BH9	BH10	BH201A	BH104B
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	02/09/2015	01/09/2015	02/09/2015	01/09/2015	02/09/2015	02/09/2015
			Sampled Time	.	.	.	.	.	.
			Date Received	03/09/2015	03/09/2015	03/09/2015	03/09/2015	03/09/2015	03/09/2015
			SDG Ref	150903-66	150903-66	150903-66	150903-66	150903-66	150903-66
			Lab Sample No.(s)	12003516	12003511	12003512	12003513	12003515	12003514
			AGS Reference						
Dibromofluoromethane**	%	TM208		89.4	87.9	83	117	90.6	119
Toluene-d8**	%	TM208		80.2	80.5	81.6	99.4	81.4	99.8
4-Bromofluorobenzene**	%	TM208		78.8	78.1	78.6	96.2	80.2	97.4
Dichlorodifluoromethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	2.28 #	<1 #	<1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Benzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

VOC MS (W)

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

Component	LOD/Units	Method	Customer Sample R	BH2	BH7	BH9	BH10	BH201A	BH104B
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	02/09/2015	01/09/2015	02/09/2015	01/09/2015	02/09/2015	02/09/2015
			Sampled Time	.	.	.	.	.	.
			Date Received	03/09/2015	03/09/2015	03/09/2015	03/09/2015	03/09/2015	03/09/2015
			SDG Ref	150903-66	150903-66	150903-66	150903-66	150903-66	150903-66
			Lab Sample No.(s)	12003516	12003511	12003512	12003513	12003515	12003514
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		1.7 #	1.77 #	1.89 #	<1 #	1.8 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

VOC MS (W)

Results Legend

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

Component	LOD/Units	Method	Customer Sample R	BH2	BH7	BH9	BH10	BH201A	BH104B
			Depth (m)	.	.	.	.	.	.
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	02/09/2015	01/09/2015	02/09/2015	01/09/2015	02/09/2015	02/09/2015
			Sampled Time	.	.	.	.	.	.
			Date Received	03/09/2015	03/09/2015	03/09/2015	03/09/2015	03/09/2015	03/09/2015
			SDG Ref	150903-66	150903-66	150903-66	150903-66	150903-66	150903-66
			Lab Sample No.(s)	12003516	12003511	12003512	12003513	12003515	12003514
			AGS Reference						
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM061	Method for the Determination of EPH,Massachusetts Dept.of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM107	ISO 6060-1989	Determination of Chemical Oxygen Demand using COD Dr Lange Kit		
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS		
TM172	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	EPH in Waters		
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS		
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters		
TM245	By GC-FID	Determination of GRO by Headspace in waters		
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter		
TM283		Determination of Dissolved Niobium, Tungsten, and Zirconium in Water Matrices by ICP-MS		

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

CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	12003516	12003511	12003512	12003513	12003515	12003514
Customer Sample Ref.	BH2	BH7	BH9	BH10	BH201A	BH104B
AGS Ref.						
Depth						
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	04-Sep-2015	04-Sep-2015	04-Sep-2015	04-Sep-2015	04-Sep-2015	04-Sep-2015
Anions by Kone (w)	07-Sep-2015	07-Sep-2015	07-Sep-2015	07-Sep-2015	07-Sep-2015	09-Sep-2015
COD Unfiltered	04-Sep-2015	04-Sep-2015	04-Sep-2015	04-Sep-2015	04-Sep-2015	05-Sep-2015
Dissolved Metals by ICP-MS	06-Sep-2015	08-Sep-2015	06-Sep-2015	07-Sep-2015	08-Sep-2015	06-Sep-2015
Dissolved W, Nb and Zr by ICP-MS	08-Sep-2015	08-Sep-2015	08-Sep-2015	08-Sep-2015	08-Sep-2015	08-Sep-2015
EPH (DRO) (C10-C40) Aqueous (W)	07-Sep-2015	07-Sep-2015	08-Sep-2015	07-Sep-2015	07-Sep-2015	08-Sep-2015
GRO by GC-FID (W)	07-Sep-2015	07-Sep-2015	07-Sep-2015	07-Sep-2015	07-Sep-2015	07-Sep-2015
Mercury Dissolved	07-Sep-2015	07-Sep-2015	07-Sep-2015	07-Sep-2015	07-Sep-2015	08-Sep-2015
Nitrite by Kone (w)	06-Sep-2015	06-Sep-2015	06-Sep-2015	06-Sep-2015	06-Sep-2015	09-Sep-2015
pH Value	08-Sep-2015	08-Sep-2015	08-Sep-2015	08-Sep-2015	08-Sep-2015	07-Sep-2015
SVOC MS (W) - Aqueous	07-Sep-2015	07-Sep-2015	08-Sep-2015	07-Sep-2015	07-Sep-2015	08-Sep-2015
Total EPH (aq)	08-Sep-2015	08-Sep-2015	08-Sep-2015	09-Sep-2015	08-Sep-2015	09-Sep-2015
VOC MS (W)	07-Sep-2015	07-Sep-2015	07-Sep-2015	09-Sep-2015	07-Sep-2015	09-Sep-2015

CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

ASSOCIATED AQC DATA

Ammoniacal Nitrogen

Component	Method Code	QC 1214	QC 1207
Ammoniacal Nitrogen as N	TM099	**102.8** 91.84 : 108.16	**104.4** 91.84 : 108.16

Anions by Kone (w)

Component	Method Code	QC 1269	QC 1243
Chloride	TM184	**99.4** 94.64 : 106.82	94.23 : 107.50
Phosphate (Ortho as PO4)	TM184	96.40 : 108.40	**102.4** 96.41 : 109.80
Sulphate (soluble)	TM184	**101.2** 96.47 : 104.74	94.38 : 108.93
TON as NO3	TM184	**98.5** 93.05 : 112.12	93.93 : 110.49

COD Unfiltered

Component	Method Code	QC 1200	QC 1252
COD	TM107	**97.91** 95.90 : 102.57	**100.38** 95.90 : 102.57

Dissolved Metals by ICP-MS

Component	Method Code	QC 1282	QC 1276
Aluminium	TM152	**103.33** 88.58 : 117.87	**100.53** 88.58 : 117.87
Antimony	TM152	**100.4** 87.01 : 109.33	**100.53** 87.01 : 109.33
Arsenic	TM152	**99.87** 89.45 : 113.51	**100.67** 89.45 : 113.51
Barium	TM152	**99.33** 90.47 : 113.85	**98.53** 90.47 : 113.85
Beryllium	TM152	**102.13** 84.68 : 120.26	**102.4** 84.68 : 120.26
Boron	TM152	**98.93** 82.95 : 121.47	**99.73** 82.95 : 121.47
Cadmium	TM152	**102.93** 90.40 : 113.29	**101.73** 90.40 : 113.29
Chromium	TM152	**102.27** 90.01 : 114.05	**102.27** 90.01 : 114.05
Cobalt	TM152	**102.0** 87.14 : 117.85	**100.8** 87.14 : 117.85
Copper	TM152	**97.6** 88.43 : 114.27	**100.53** 88.43 : 114.27
Lead	TM152	**96.67** 89.53 : 109.90	**96.53** 89.53 : 109.90

CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Dissolved Metals by ICP-MS

		QC 1282	QC 1276
Lithium	TM152	**103.07** 84.32 : 123.11	**102.8** 84.32 : 123.11
Manganese	TM152	**102.13** 91.43 : 113.17	**102.13** 91.43 : 113.17
Molybdenum	TM152	**98.27** 80.73 : 113.85	**98.93** 80.73 : 113.85
Nickel	TM152	**100.27** 87.68 : 113.94	**100.13** 87.68 : 113.94
Phosphorus	TM152	**88.93** 86.68 : 118.34	**100.93** 86.68 : 118.34
Selenium	TM152	**100.4** 91.03 : 113.34	**100.53** 91.03 : 113.34
Strontium	TM152	**102.0** 90.44 : 114.09	**100.67** 90.44 : 114.09
Tellurium	TM152	**90.27** 80.93 : 116.91	**85.6** 80.93 : 116.91
Thallium	TM152	**96.27** 90.27 : 111.31	**98.93** 90.27 : 111.31
Tin	TM152	**101.47** 83.07 : 112.37	**99.6** 83.07 : 112.37
Titanium	TM152	**102.93** 92.65 : 111.58	**101.07** 92.65 : 111.58
Uranium	TM152	**94.13** 88.60 : 110.35	**94.53** 88.60 : 110.35
Vanadium	TM152	**102.27** 88.43 : 116.60	**102.53** 88.43 : 116.60
Zinc	TM152	**95.73** 89.84 : 113.06	**101.6** 89.84 : 113.06

Dissolved W, Nb and Zr by ICP-MS

Component	Method Code	QC 1290
Bismuth	TM283	**92.13** 66.55 : 123.56
Niobium	TM283	**107.6** 85.00 : 115.00
Silver	TM283	**105.33** 81.37 : 112.35
Tungsten	TM283	**85.87** 85.00 : 115.00
Zirconium	TM283	**102.27** 85.00 : 115.00

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

Component	Method Code	QC 1284	QC 1280
EPH (DRO) (C10-C40)	TM172	**80.5** 59.47 : 106.15	**72.5** 59.22 : 112.78

GRO by GC-FID (W)

CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

GRO by GC-FID (W)

Component	Method Code	QC 1234
Benzene by GC	TM245	**98.0** 77.50 : 122.50
Ethylbenzene by GC	TM245	**97.5** 77.50 : 122.50
m & p Xylene by GC	TM245	**97.75** 77.50 : 122.50
MTBE GC-FID	TM245	**101.0** 77.50 : 122.50
o Xylene by GC	TM245	**97.0** 77.50 : 122.50
QC	TM245	**104.67** 74.88 : 125.54
Toluene by GC	TM245	**98.5** 77.50 : 122.50

Mercury Dissolved

Component	Method Code	QC 1282	QC 1248
Mercury Dissolved (CVAF)	TM183	**108.0** 73.51 : 120.83	**96.1** 73.51 : 120.83

pH Value

Component	Method Code	QC 1280	QC 1258
pH	TM256	**101.62** 99.37 : 102.65	**101.08** 99.20 : 102.85

SVOC MS (W) - Aqueous

Component	Method Code	QC 1255	QC 1208	QC 1247
4-Bromophenylphenyleth er	TM176	**65.28** 55.04 : 128.00	**87.2** 55.04 : 128.00	**82.4** 65.62 : 120.95
Benzo(a)anthracene	TM176	**66.0** 52.64 : 123.68	**87.2** 52.64 : 123.68	**82.4** 62.83 : 114.26
Benzo(a)pyrene	TM176	**58.24** 49.60 : 114.40	**79.68** 49.60 : 114.40	**80.8** 54.19 : 105.67
Butylbenzyl phthalate	TM176	**70.32** 49.04 : 127.76	**93.6** 49.04 : 127.76	**82.4** 45.10 : 118.90
Hexachlorobutadiene	TM176	**59.36** 42.80 : 108.20	**77.52** 42.80 : 108.20	**61.28** 43.12 : 110.32
Naphthalene	TM176	**67.92** 47.20 : 116.80	**92.0** 47.20 : 116.80	**85.6** 69.48 : 118.94
Nitrobenzene	TM176	**69.36** 58.70 : 110.90	**88.8** 58.70 : 110.90	**79.52** 69.13 : 107.62
Phenol	TM176	**38.08** 30.25 : 79.75	**50.08** 30.25 : 79.75	**49.12** 30.92 : 74.19

CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

VOC MS (W)

Component	Method Code	QC 1272	QC 1223	QC 1239
1,1,1,2-Tetrachloroethane	TM208	**91.5** 84.25 : 114.84	**94.5** 77.50 : 122.50	**100.5** 84.25 : 114.84
1,1,1-Trichloroethane	TM208	**90.0** 84.67 : 111.97	**96.5** 77.50 : 122.50	**96.0** 84.67 : 111.97
1,1-Dichloroethane	TM208	**92.0** 80.19 : 121.45	**107.0** 77.50 : 122.50	**99.5** 80.19 : 121.45
1,2-Dichloroethane	TM208	**93.0** 77.68 : 127.05	**98.0** 77.50 : 122.50	**99.0** 77.68 : 127.05
2-Chlorotoluene	TM208	**93.0** 85.81 : 116.77	**97.0** 77.50 : 122.50	**99.0** 85.81 : 116.77
4-Chlorotoluene	TM208	**92.5** 87.22 : 115.45	**97.5** 77.50 : 122.50	**100.0** 87.22 : 115.45
Benzene	TM208	**90.5** 82.30 : 120.49	**103.0** 77.50 : 122.50	**101.0** 82.30 : 120.49
Bromomethane	TM208	**99.0** 76.16 : 123.35	**104.0** 75.87 : 132.10	**90.0** 76.16 : 123.35
Carbontetrachloride	TM208	**92.5** 83.96 : 117.98	**98.5** 77.50 : 122.50	**99.5** 83.96 : 117.98
Chlorobenzene	TM208	**94.5** 85.75 : 114.88	**99.5** 77.50 : 122.50	**100.0** 85.75 : 114.88
Chloroform	TM208	**94.0** 84.84 : 119.97	**103.0** 77.50 : 122.50	**104.5** 84.84 : 119.97
Chloromethane	TM208	**96.0** 53.63 : 141.38	**131.0** 77.12 : 138.43	**113.5** 53.63 : 141.38
Cis-1,2-Dichloroethene	TM208	**102.5** 81.65 : 120.44	**111.0** 77.50 : 122.50	**111.0** 81.65 : 120.44
Dichloromethane	TM208	**93.5** 79.31 : 122.56	**113.0** 77.50 : 122.50	**104.0** 79.31 : 122.56
Ethylbenzene	TM208	**89.5** 80.74 : 110.74	**96.0** 78.88 : 104.73	**94.0** 80.74 : 110.74
Hexachlorobutadiene	TM208	**101.5** 68.91 : 121.59	**81.5** 72.12 : 118.38	**91.5** 68.91 : 121.59
o-Xylene	TM208	**91.0** 85.43 : 113.21	**96.0** 82.27 : 108.61	**95.0** 85.43 : 113.21
p/m-Xylene	TM208	**90.0** 80.94 : 113.51	**97.0** 74.83 : 118.29	**95.0** 80.94 : 113.51
Tert-butyl methyl ether	TM208	**102.5** 59.77 : 129.51	**87.0** 75.13 : 130.32	**88.5** 59.77 : 129.51
Tetrachloroethene	TM208	**91.5** 83.21 : 115.40	**95.0** 82.93 : 109.54	**101.5** 83.21 : 115.40
Toluene	TM208	**90.0** 86.02 : 114.04	**96.5** 80.95 : 110.35	**98.5** 86.02 : 114.04
Trichloroethene	TM208	**92.0** 83.50 : 113.50	**96.5** 82.90 : 111.55	**96.5** 83.50 : 113.50
Vinyl Chloride	TM208	**84.5** 63.71 : 124.88	**105.5** 64.36 : 126.94	**82.0** 63.71 : 124.88

The above information details the reference name of the analytical quality control sample (AQC) that has been run with the samples contained in this report for the different methods of analysis.
The figure detailed is the percentage recovery result for the AQC.
The subscript numbers below are the percentage recovery lower control limit (LCL) and the upper control limit (UCL). The percentage recovery result for the AQC should be between these limits to be statistically in control.

CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

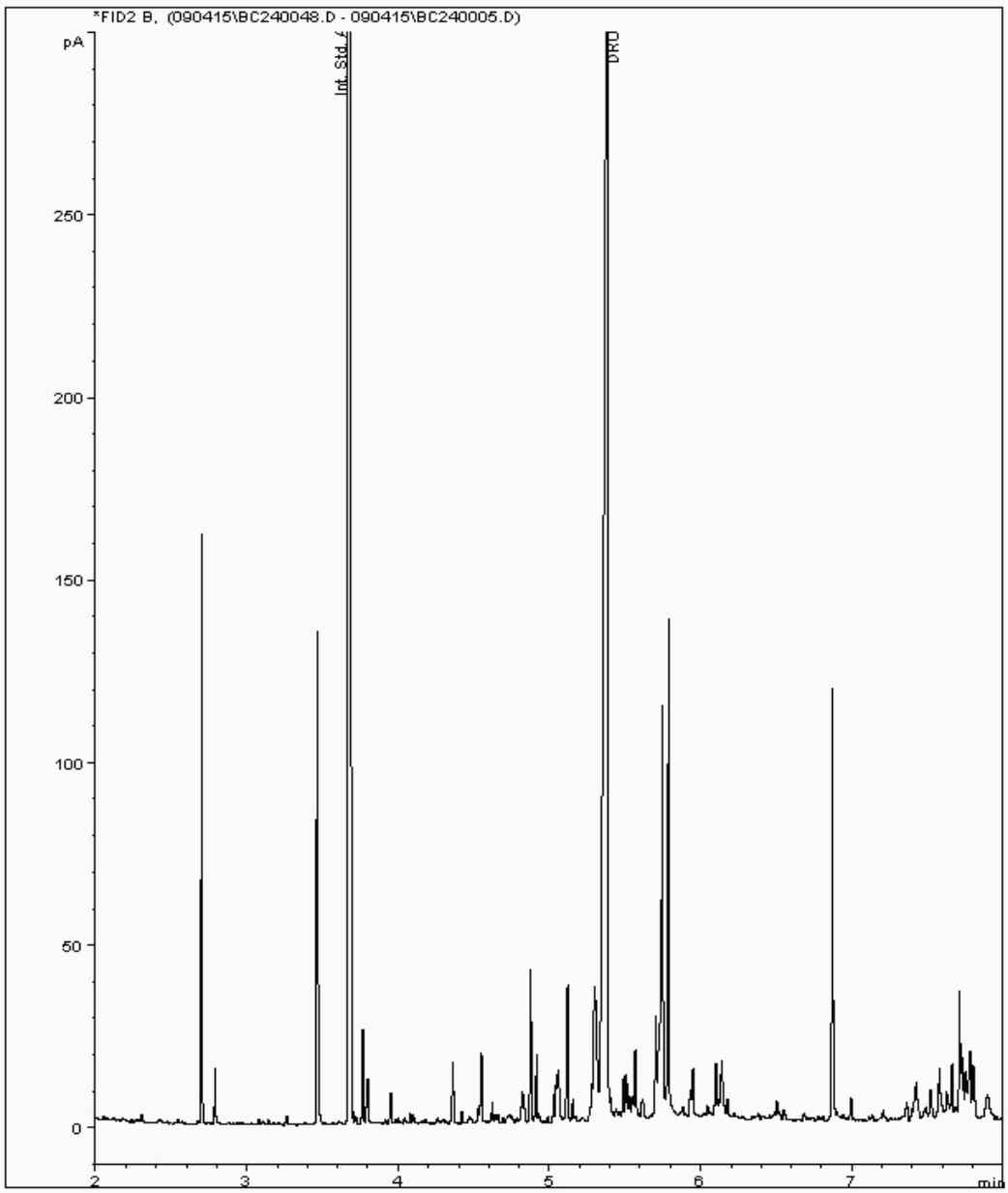
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 12008285
Sample ID : BH9

Depth :

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

Sample Identity: 11385279-
Date Acquired : 07/09/2015 18:32:19 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

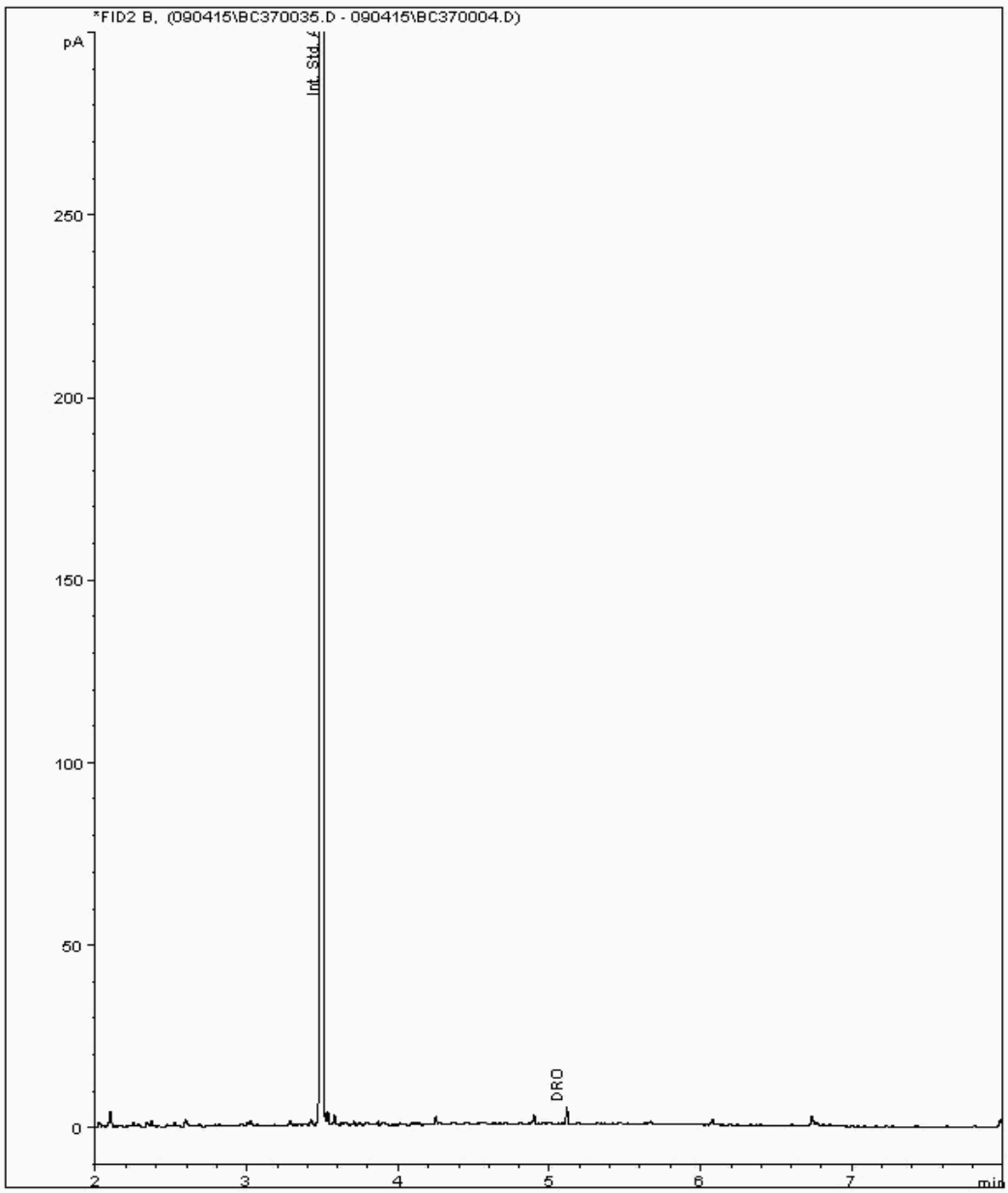
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 12008287
Sample ID : BH7

Depth :

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

Sample Identity: l1385265-
Date Acquired : 05/09/2015 04:02:39 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

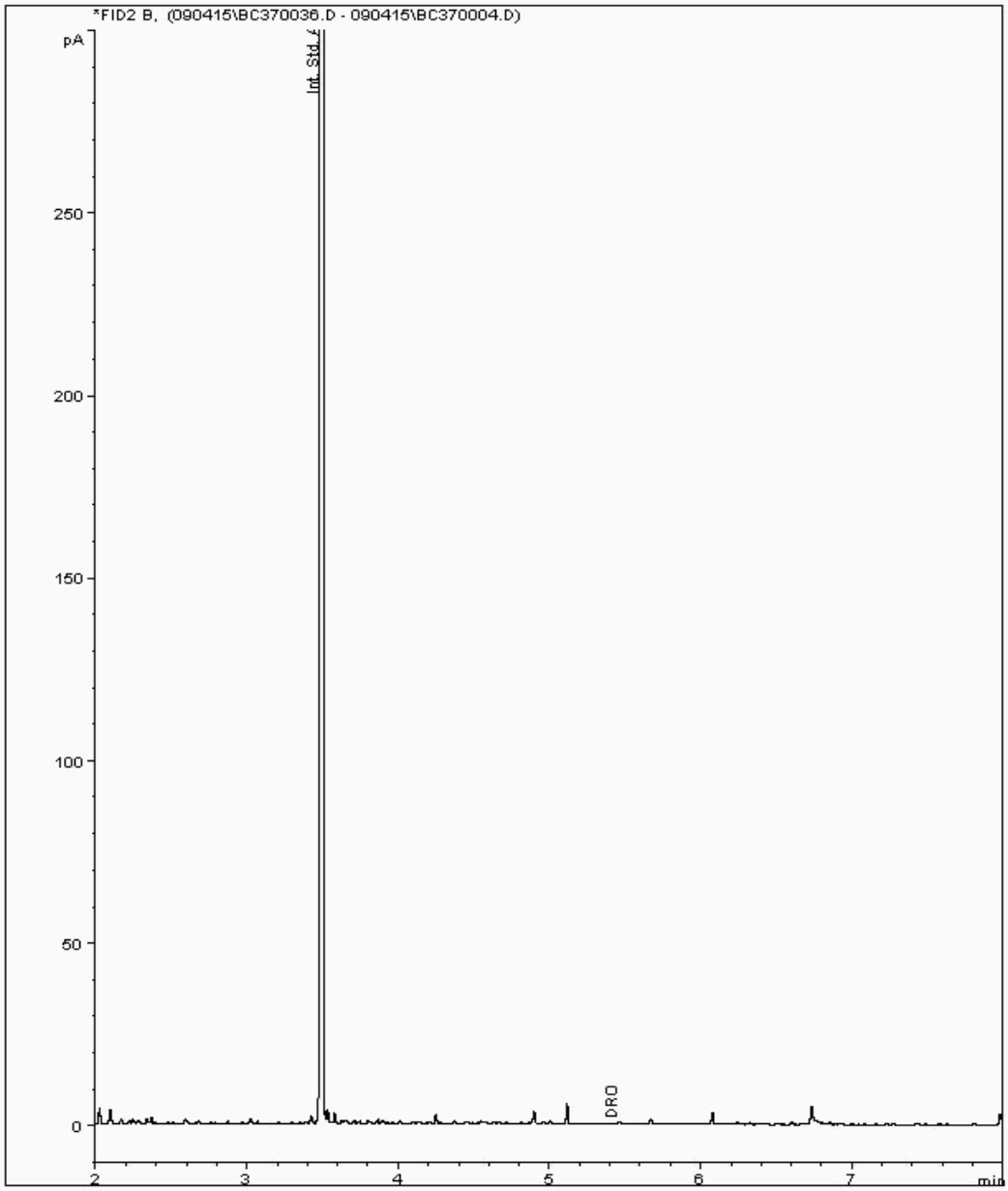
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 12008289
Sample ID : BH201A

Depth :

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

Sample Identity: 11385324-
Date Acquired : 05/09/2015 04:25:24 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

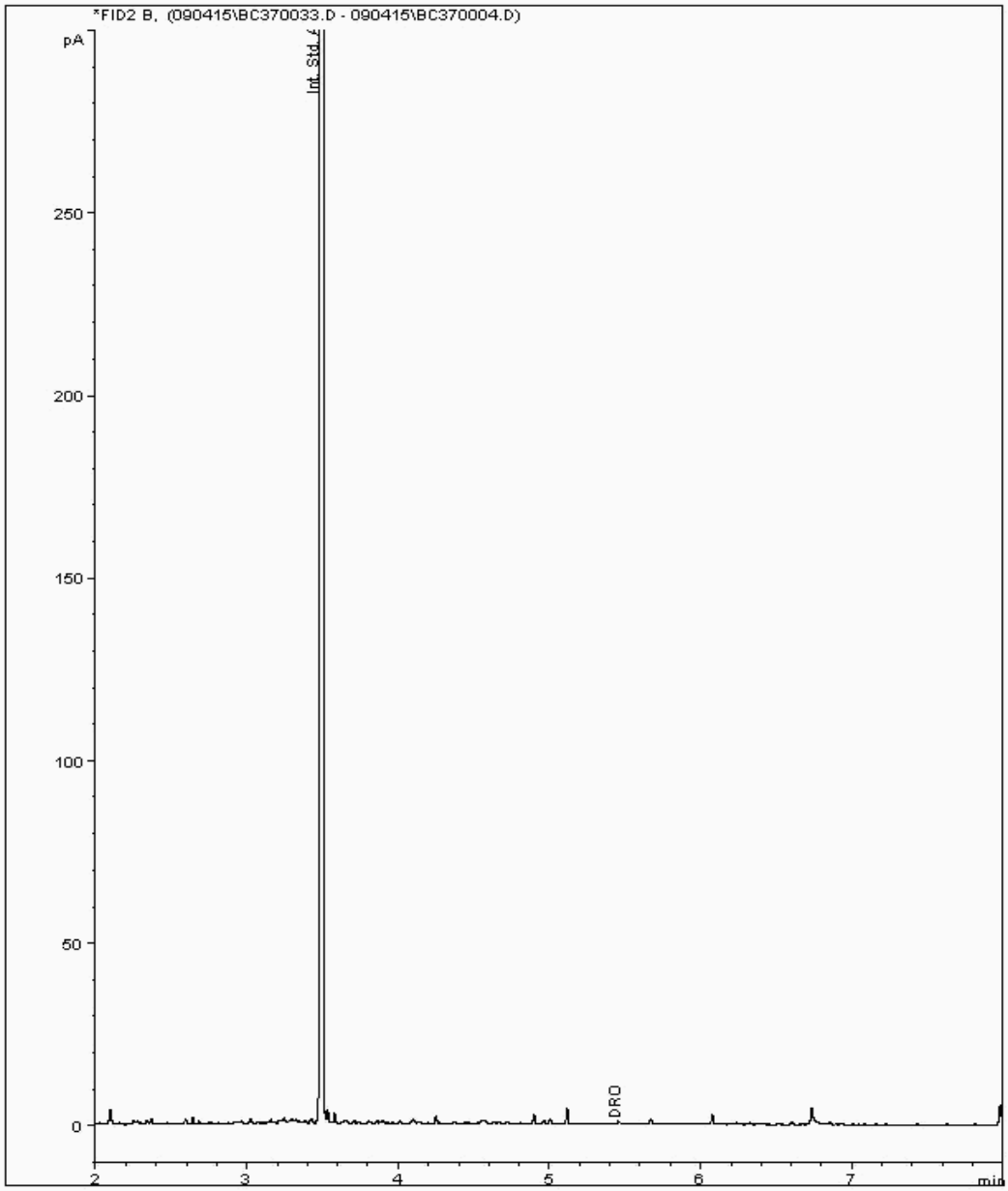
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 12008291
Sample ID : BH2

Depth :

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

Sample Identity: 11385370-
Date Acquired : 05/09/2015 03:17:44 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

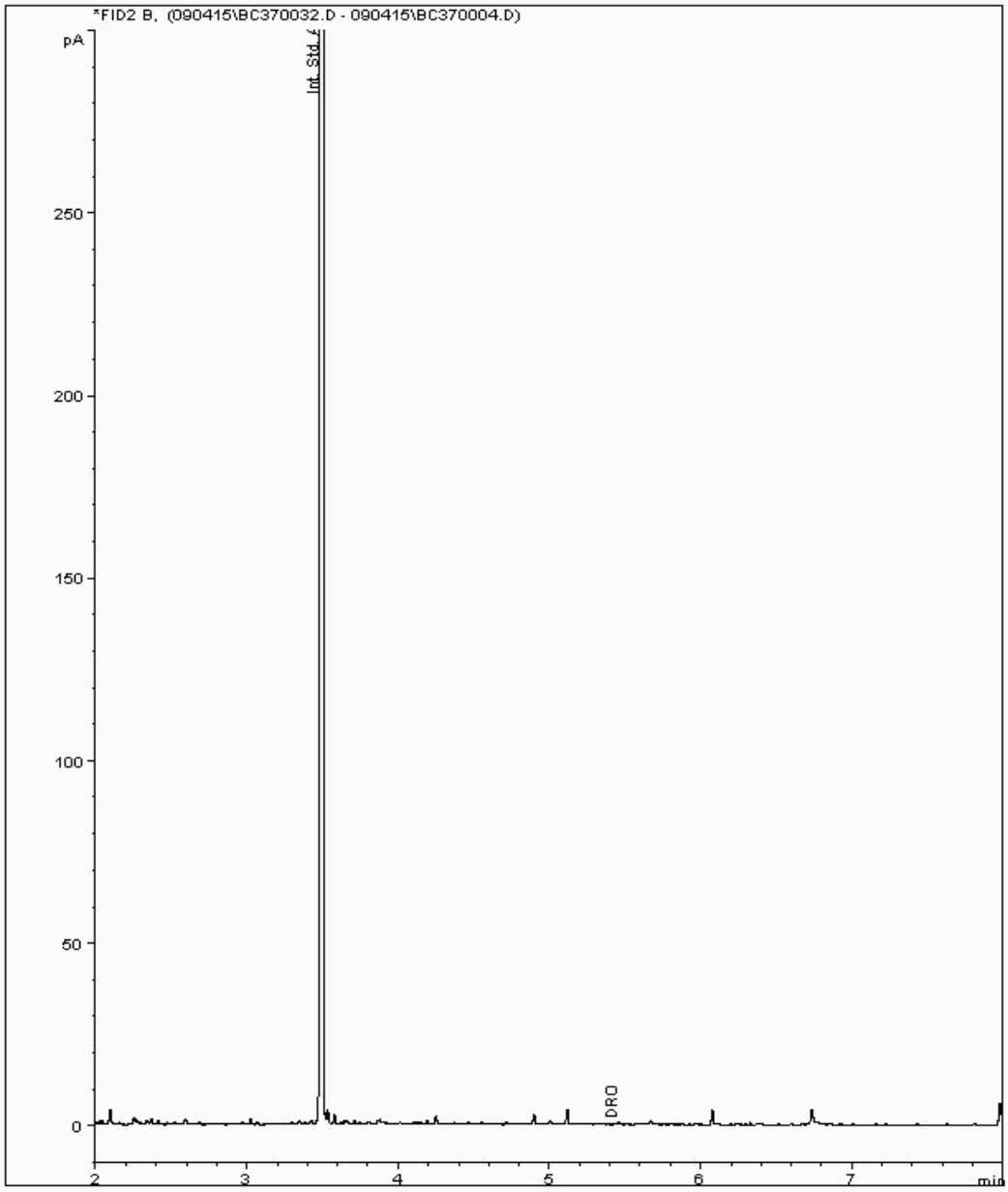
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 12008293
Sample ID : BH10

Depth :

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

Sample Identity: 11385293-
Date Acquired : 05/09/2015 02:55:03 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

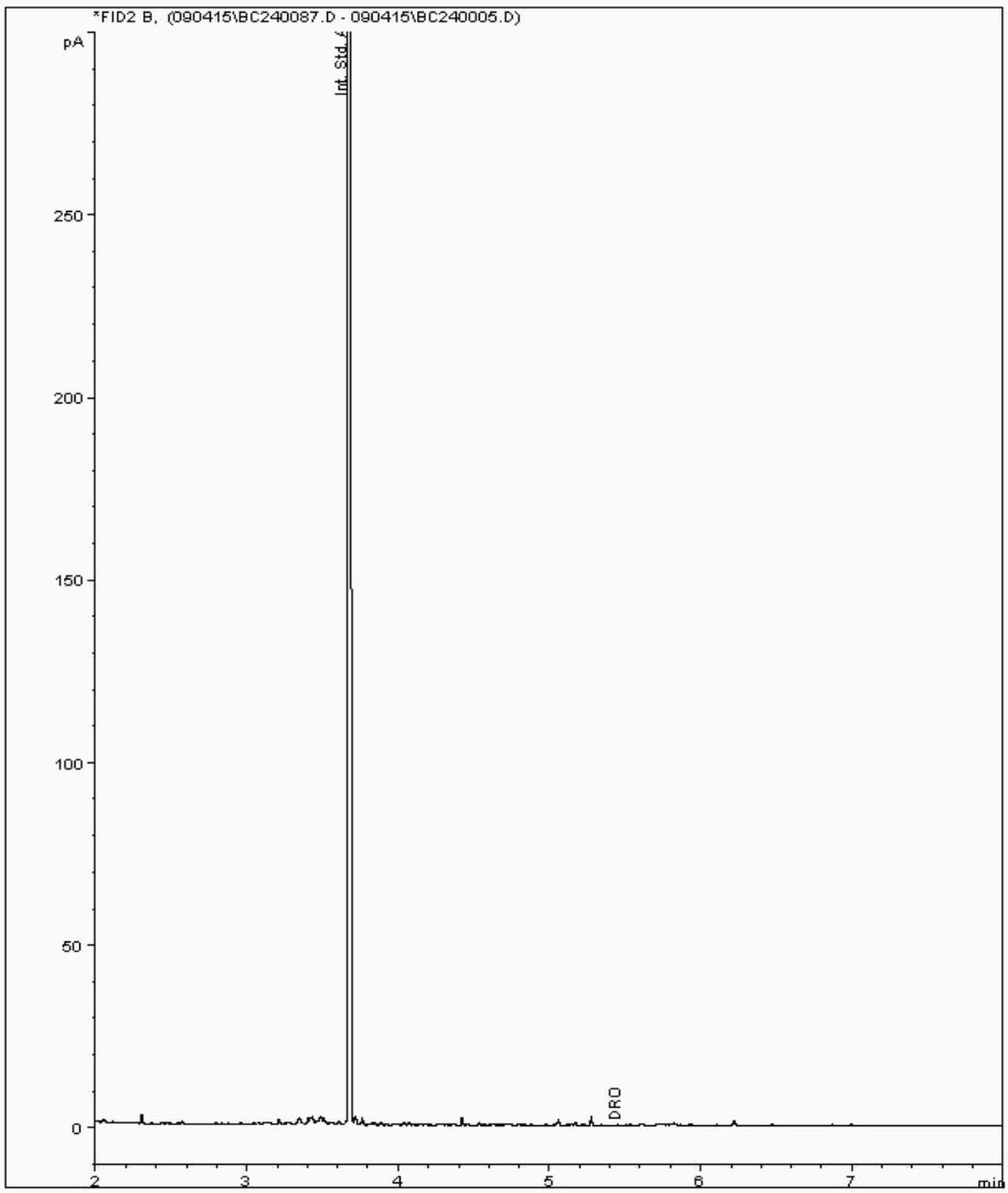
Analysis: EPH (DRO) (C10-C40) Aqueous (W)

Sample No : 12015642
Sample ID : BH104B

Depth :

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

Sample Identity: 11389081-
Date Acquired : 08/09/2015 12:08:27 PM
Units : mg/l



CERTIFICATE OF ANALYSIS

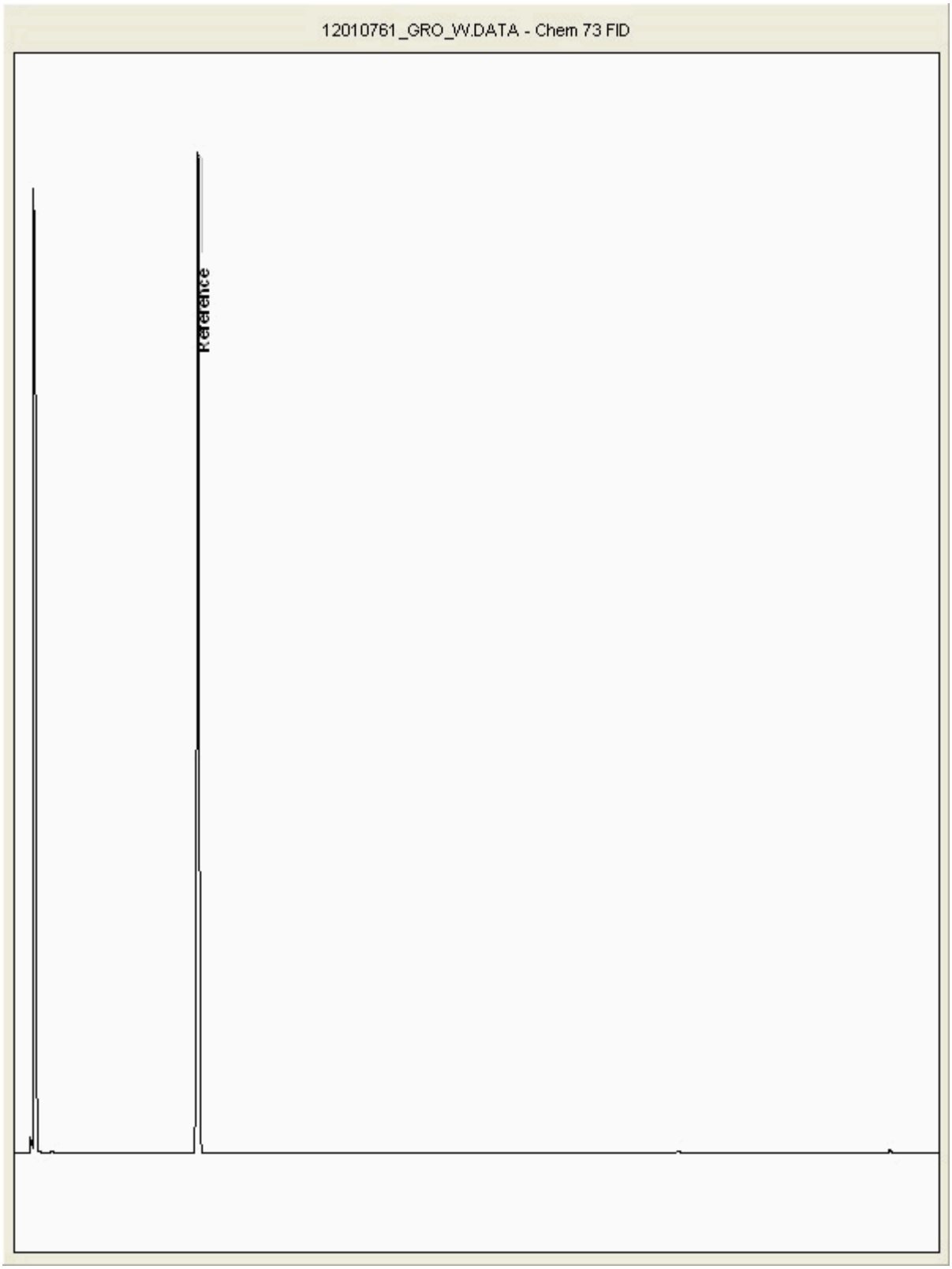
SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 12010761
Sample ID : BH104B

Depth :



CERTIFICATE OF ANALYSIS

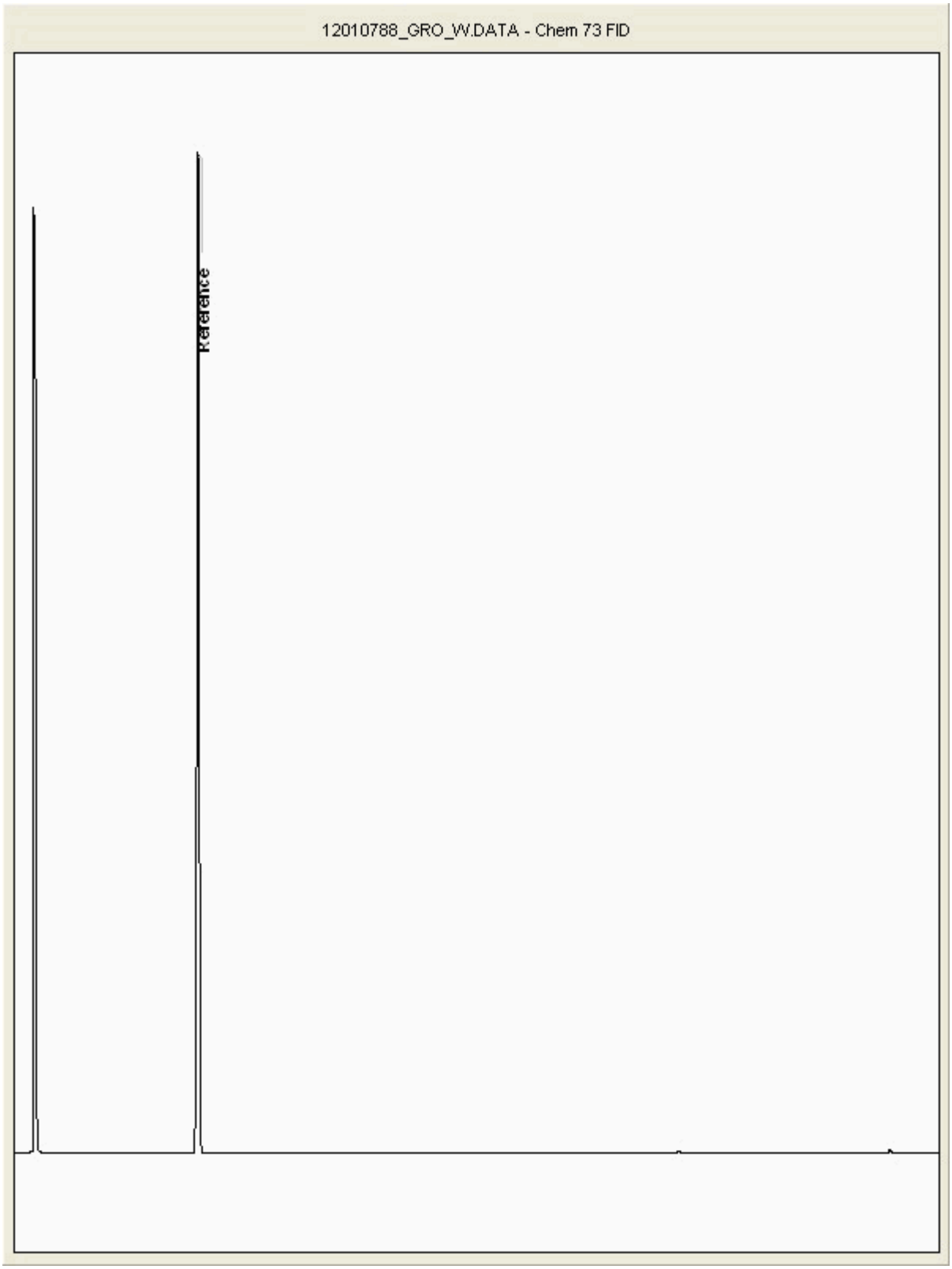
SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 12010788
Sample ID : BH10

Depth :



CERTIFICATE OF ANALYSIS

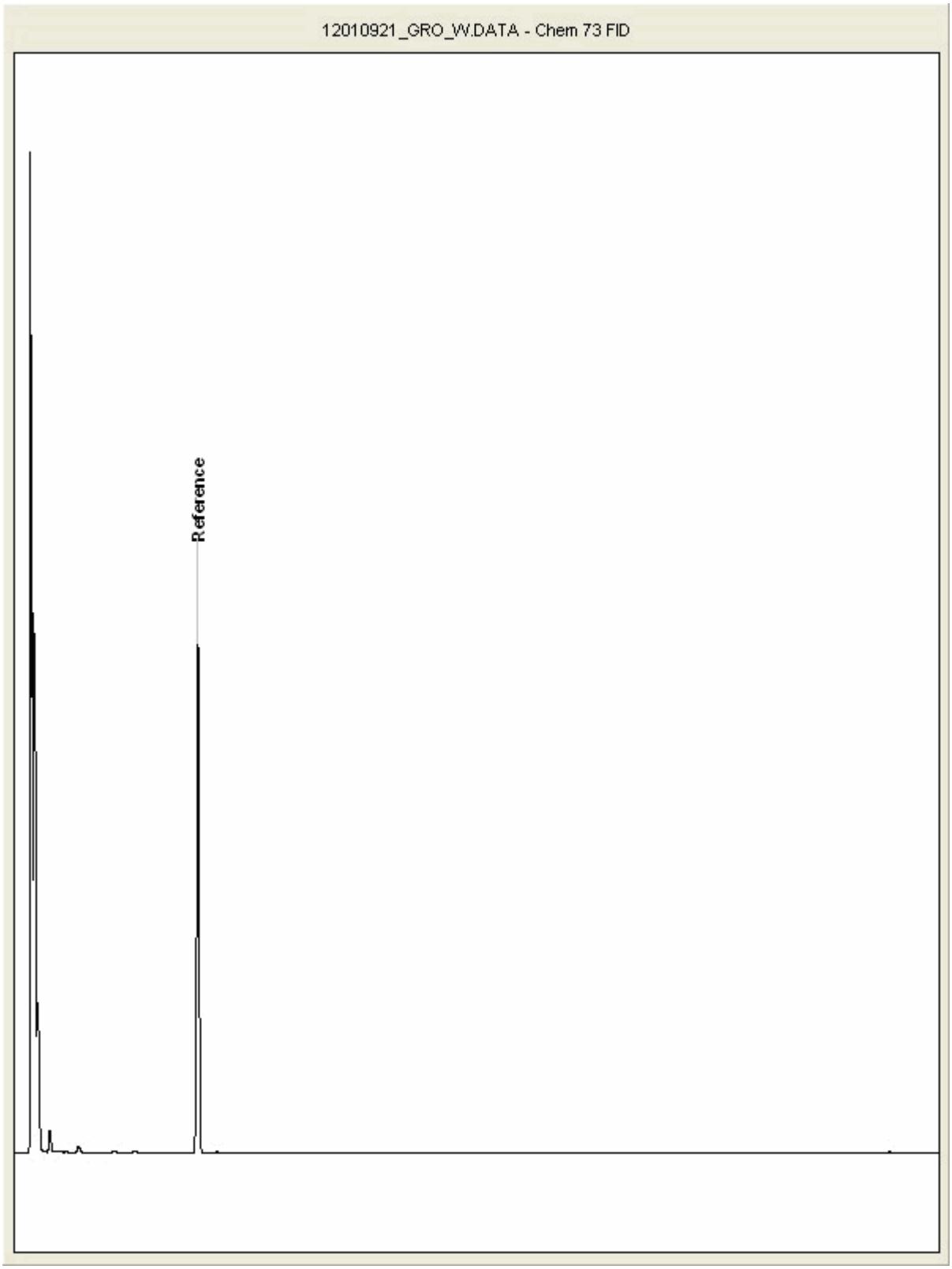
SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 12010921
Sample ID : BH9

Depth :

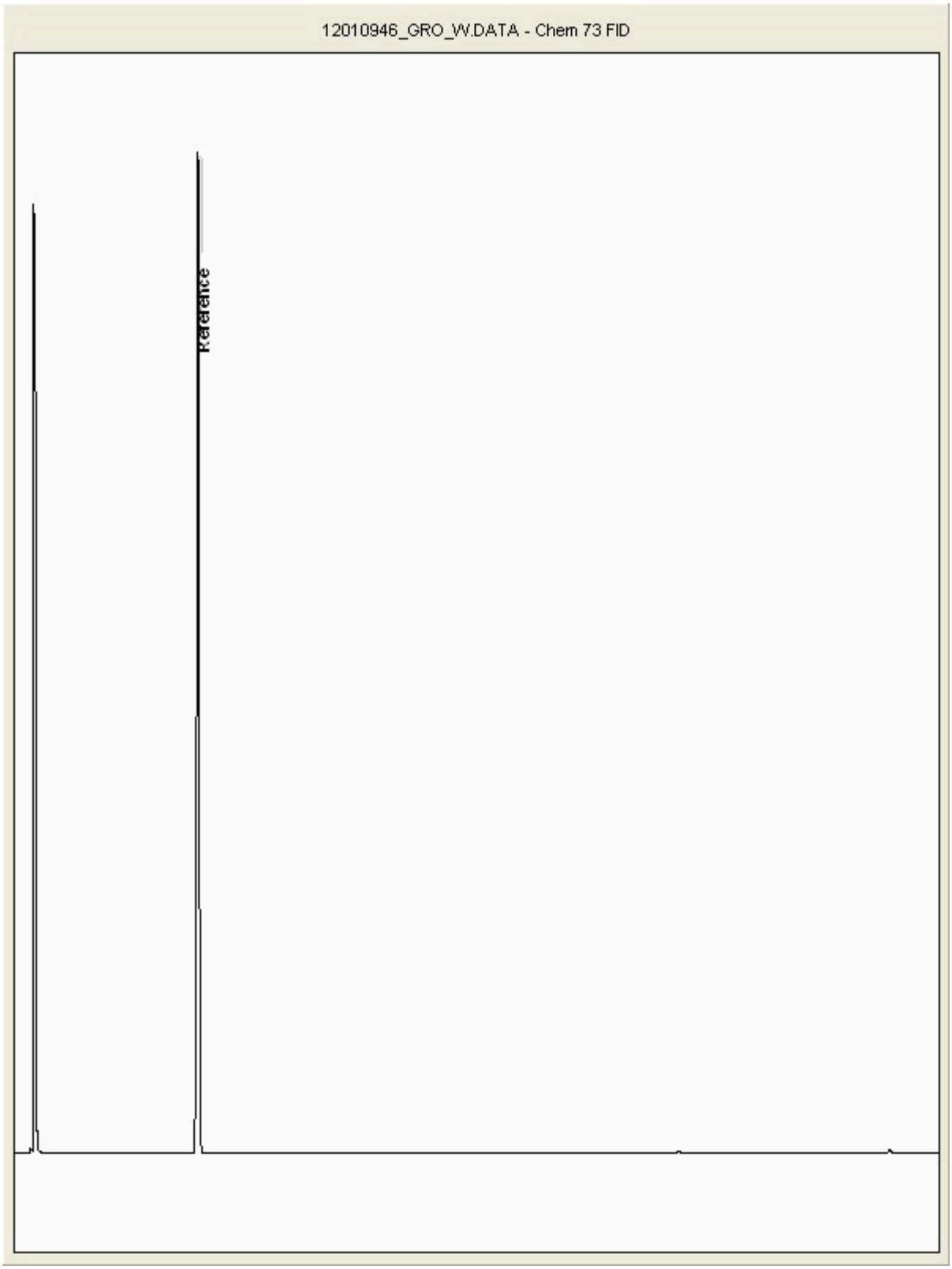


CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis:	GRO by GC-FID (W)	**Sample No :**	12010946	**Depth :**	
		Sample ID :	BH7		



CERTIFICATE OF ANALYSIS

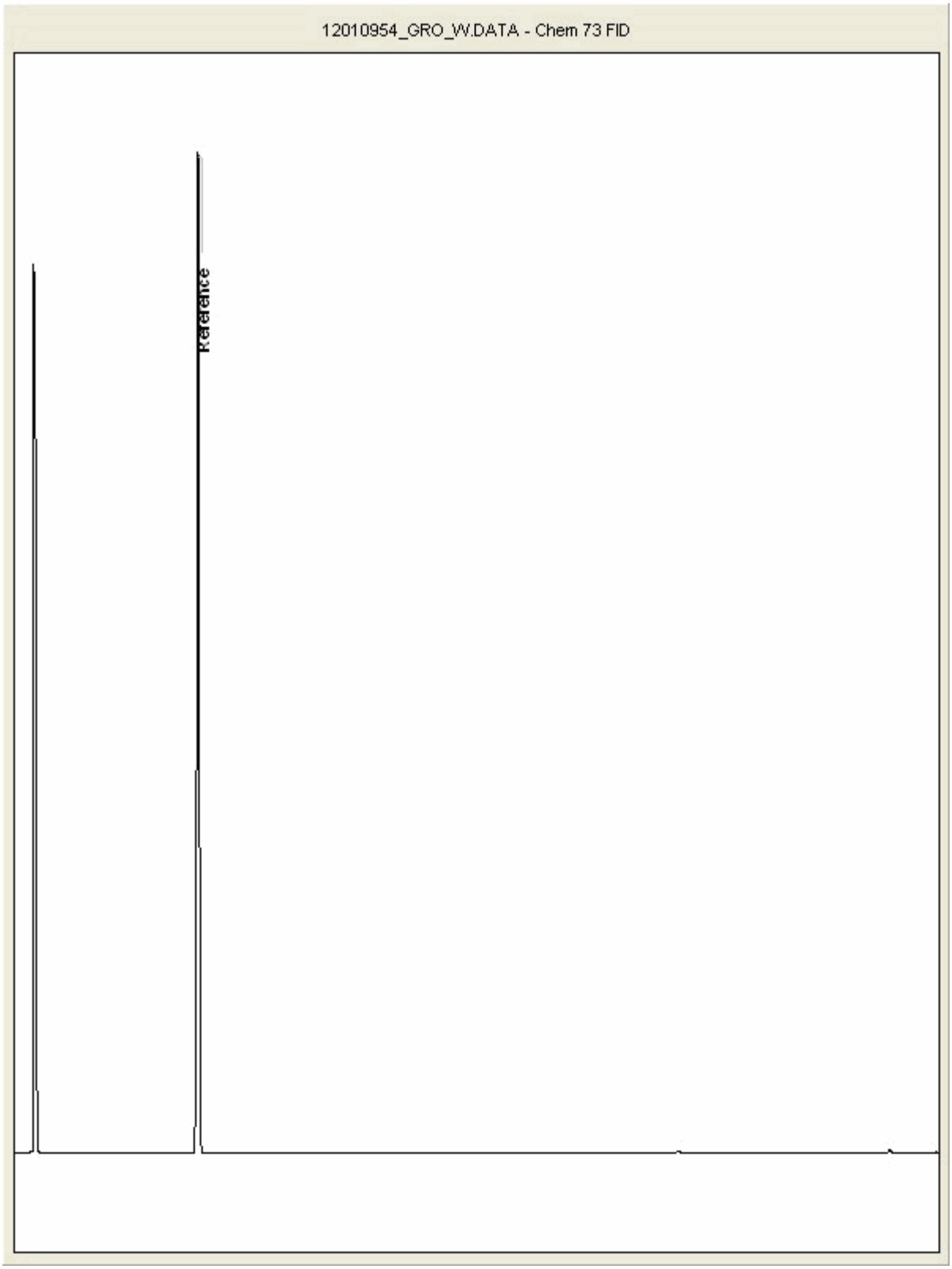
SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 12010954
Sample ID : BH201A

Depth :



CERTIFICATE OF ANALYSIS

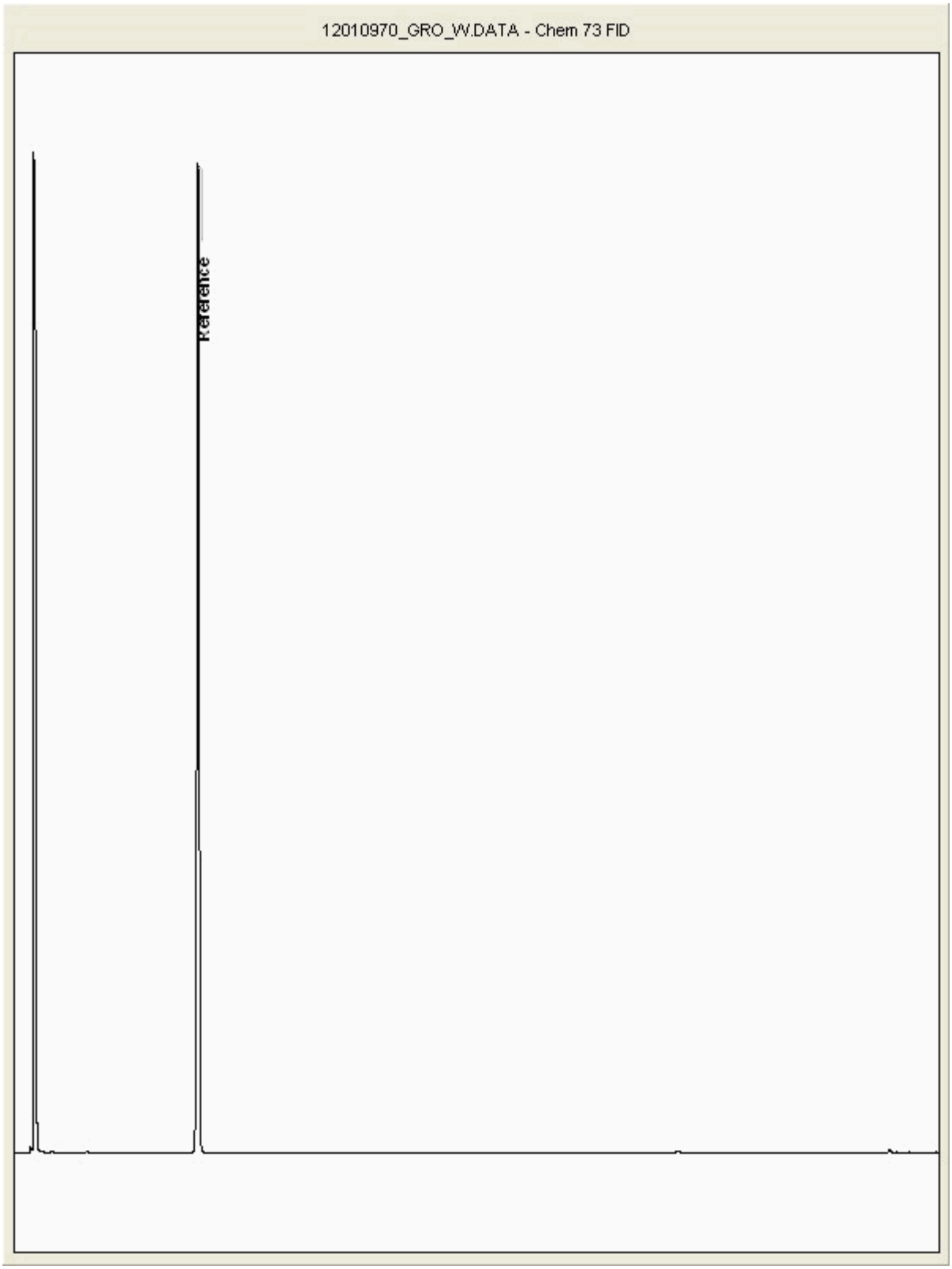
SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 12010970
Sample ID : BH2

Depth :



CERTIFICATE OF ANALYSIS

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Appendix

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

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

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

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

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

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

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

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

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

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

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

12. Results relate only to the items tested

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

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

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

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

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

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

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

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

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

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

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

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

SOLID MATRICES EXTRACTION SUMMARY

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

LIQUID MATRICES EXTRACTION SUMMARY

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

Identification of Asbestos in Bulk Materials

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

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

Visual Estimation Of Fibre Content

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

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

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

Last Updated : 2010/09/08

SDG:	150903-66	**Location:**	Stag Brewery	**Order Number:**	
Job:	H_URS_WIM-273	**Customer:**	AECOM	**Report Number:**	329161
Client Reference:		**Attention:**	Gary Marshall	**Superseded Report:**	

Appendix

General

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

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

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

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

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

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

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

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

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

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

11. Results relate only to the items tested.

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

13. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%, they are generally wider for volatiles analysis, 50-150%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

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

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

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

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

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

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

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

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

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

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

Sample Deviations

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

Asbestos

Identification of Asbestos in Bulk Materials & Soils

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

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

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

Visual Estimation Of Fibre Content

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

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

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

C. Ground level plans current and proposed

NOTES:

DO NOT SCALE FROM THIS DRAWING. ALL DIMENSIONS TO BE CHECKED ON SITE. ALL OMISSIONS AND DISCREPANCIES TO BE REPORTED TO THE ARCHITECT IMMEDIATELY.

NORTH

Revision description	Date	Check	Rev
LBRUT 2 APPLICATION	25/02/22	BJ	-

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www.squireandpartners.com

Project

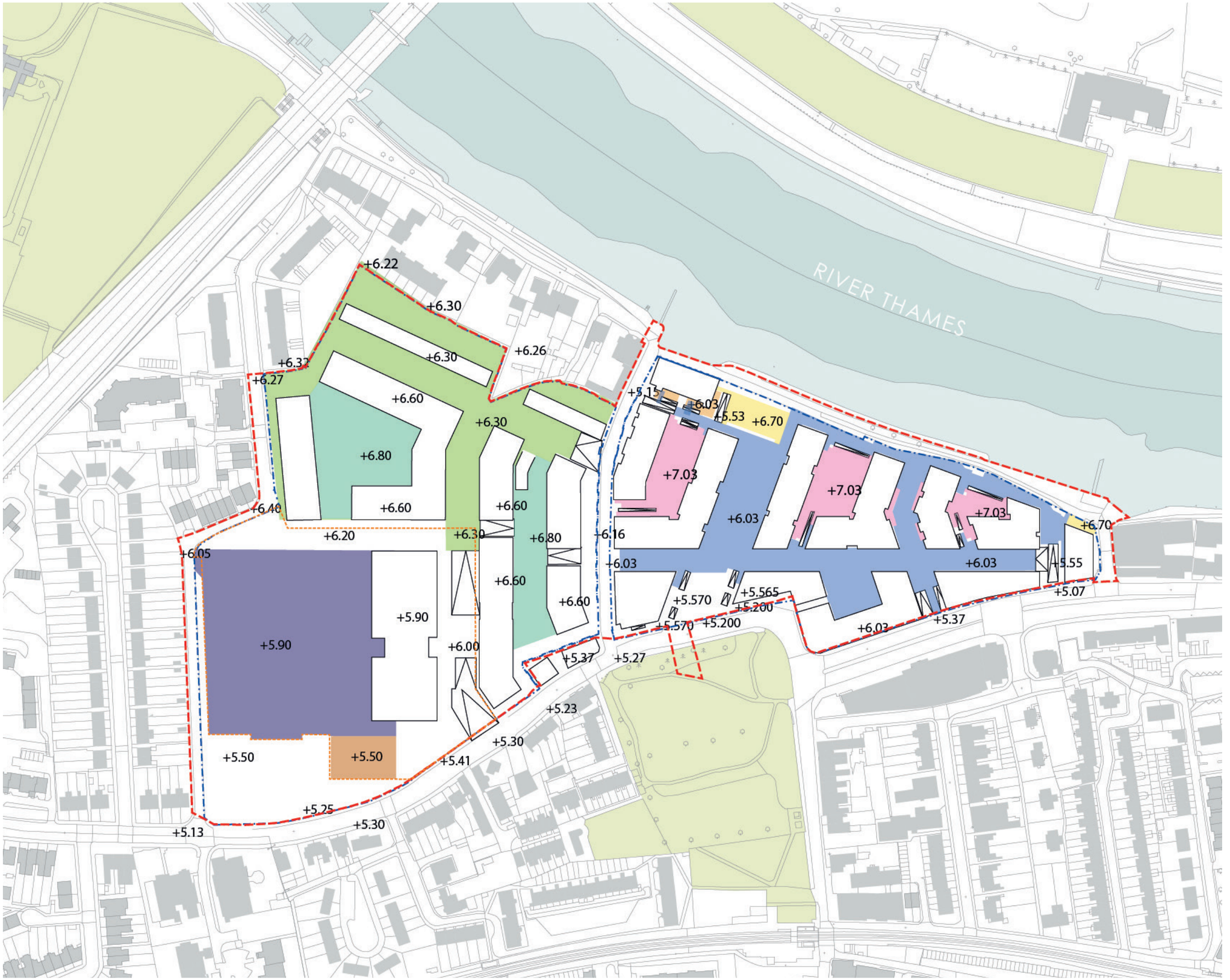
Stag Brewery
Richmond

Drawing

EXISTING SITE SURVEY

Drawn	Date	Scale
RKB	08/03/22	1 : 1250 @ A0 1 : 2500 @ A2

Job Number	Drawing number	Revision
18125	JA12_Z0_P_00_009	-



rev	details	by	date
D00	Issued for Planning	RJ	02.02.2018
D01	Issued for Planning	RJ	09.02.2018
D02	Planning Substitution	RJ	11.04.2019
D03	Issued for Planning	RM	24.04.2020

Notes

1.0 All dimensions in millimeters.
1.2 Use only dimensions shown.

- +7.03
- +6.80
- +6.70
- +6.30
- +6.03
- +5.90
- +5.53
- +5.50
- Grading
- Site Application Boundary
- School Application Boundary

ISSUE FOR COORDINATION

Project
STAG BREWERY

Drawing
Proposed Site Wide Landscape Level Plan

Date	Scale	Drawn	Checked
02.02.2018	1:2500 @ A3	CL	RM

Drawing status	Revision
DESIGN	D03

Drawing number
P10736-00-004-105

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D. Drainage Strategy

The Former Stag Brewery, Mortlake

Drainage Strategy

August 2022

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Client Name:	Reselton Properties Limited
Document Reference:	WIE18671-104-R-11-4-1-DS
Project Number:	WIE18671

Quality Assurance – Approval Status

This document has been prepared and checked in accordance with
Waterman Group's IMS (BS EN ISO 9001: 2008, BS EN ISO 14001: 2004 and BS OHSAS 18001:2007)

Issue	Date	Prepared by	Checked by	Approved by
Fourth	August 2022	Sean Whelan	Brendan McCarthy	Brendan McCarthy

Comments

Disclaimer

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We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at its own risk.

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Executive Summary

This Drainage Strategy has been prepared by Waterman Infrastructure & Environment ('Waterman IE') on behalf of Reselton Properties Limited ("the Applicant") in support of two linked planning applications ("the Applications") for the comprehensive redevelopment of the former Stag Brewery Site in Mortlake ("the Site") within the London Borough of Richmond upon Thames (LBRuT).

Following refusal of earlier application this 3rd iteration of the scheme seeks to respond directly to the Mayors reasons for refusal and in doing so also addresses a number of the concerns raised by the LBRuT. The amendments can be summarised as follows:

i. A revised energy strategy is proposed in order to address the London Plan (2021) requirements;

ii. Several residential blocks have been reduced in height to better respond to the listed buildings along the Thames riverfront and to respect the setting of the Maltings building, identified as a Building of Townscape Merit (BTM) by the LBRuT;

iii. Reconfiguration of layout of Buildings 20 and 21 has been undertaken to provide lower rise buildings to better respond to the listed buildings along the Thames riverfront; and

iv. Chalkers Corner light highways mitigation works.

The school proposals (submitted under 'Application B') are unchanged. The Applicant acknowledges LBRuT's identified need for a secondary school at the Site and the applications continue to support the delivery of a school. It is expected that the principles to be agreed under the draft Community Use Agreement (CUA) will be the same as those associated with the refused school application (LBRuT ref: 18/0548/FUL, GLA ref: GLA/4172a/07).

Overall, it is considered that together, the Applications respond successfully to the concerns raised and feedback provided by stakeholders in respect of the previous schemes and during pre-application discussions on the revised Proposed Development, whilst also retaining elements of the previous scheme which were supported by stakeholders, including third parties and decision makers.

Following the submission of the two planning applications in March 2022, the Applicant has received statutory consultee comments in particular from LBRuT officers, the Health and Safety Executive (HSE), Environment Agency (EA), Thames Water and Sports England. The Applicant has sought to respond to statutory consultee comments which has necessitated some minor scheme changes to the hybrid planning application. The proposed amendments include a reduction in 14 residential units (to 1,071) and minor reduction in office (79 sqm GIA) and flexible use (55 sqm GIA) at the ground floor. Two buildings (B01- the cinema and B10) have reduced by no more than one storey each, and another building (B02) facing the riverside has undergone further development of the proposed architectural treatment. Some minor changes have also been made to the drainage, landscape, fire, waste, energy and lighting strategies.

The drainage strategy outlined in this report reflects the minor changes to the plans but follows the principles of and remains in line with the 2020 strategy approved by the GLA and LBRuT.

Surface water runoff from the northeast of the Site would discharge by gravity to the River Thames (adjacent to the northern boundary of the Site) via three outfalls. As the River Thames is tidal in this

location, direct discharge to the river would be unrestricted. The area to discharge into the River Thames has been maximised using shallow geo-cellular conveyance channels, in order to relieve the Thames Water network of flows. Surface water runoff from the remainder of the Site would discharge via gravity to the Thames Water sewer network in the surrounding highways, maximising the attenuation volume within each drainage catchment to restrict surface water flows as much as possible.

Based on an area of 5.69ha currently draining into the Thames Water network, the existing discharge rate was calculated to be 812.3 l/s. The incorporation of permeable paving, rain gardens, and underground attenuation tanks achieves a reduction of surface water flows to the greenfield runoff rate of 37.4l/s, equal to a 95% reduction compared to the existing rate.

Appropriate treatment would be incorporated into the drainage system to ensure that the quality of water discharged is acceptable. This would be achieved through the incorporation of green roofs, permeable paving aggregate sub-base, rain gardens, and rainwater harvesting. A biomat filtration system within the attenuation tanks and downstream defenders or similar hard engineered solution would also be incorporated if deemed necessary at detailed design to ensure discharge is appropriately treated.

Foul flows from the Site would discharge by gravity to the Thames Water sewer network. The existing and proposed foul discharge rates have been calculated using the water consumption method at 14.4l/s and 24.1 l/s respectively.

The on-Site drainage networks and Sustainable Drainage Systems would be privately managed and maintained for the lifetime of the Development, ensuring they remain fit for purpose and function appropriately. The management company / operator would be appointed post-planning. The school drainage system (Application B) would be delivered and maintained separately from the Application A site.

This report confirms that surface water runoff from the Site (Applications A and B) can be managed sustainably to ensure that flood risk is not increased elsewhere. It is considered that the information provided within this report satisfies the requirements of the National Planning Policy Framework (NPPF), the London Plan, and the London Borough of Richmond upon Thames Local Plan.

1. Introduction

1.1. This Drainage Strategy has been prepared by Waterman Infrastructure & Environment ('Waterman IE') on behalf of Reselton Properties Limited ("the Applicant") in support of two linked planning applications ("the Applications") for the comprehensive redevelopment of the former Stag Brewery Site in Mortlake ("the Site") within the London Borough of Richmond upon Thames (LBRuT).

Proposals

1.2. The Applications seek planning permission for:

Application A:

"Hybrid application to include the demolition of existing buildings to allow for comprehensive phased redevelopment of the site:

Planning permission is sought in detail for works to the east side of Ship Lane which comprise:

- *a) Demolition of existing buildings (except the Maltings and the façade of the Bottling Plant and former Hotel), walls, associated structures, site clearance and groundworks*
- *b) Alterations and extensions to existing buildings and erection of buildings varying in height from 3 to 9 storeys plus a basement of one to two storeys below ground*
- *c) Residential apartments*
- *d) Flexible use floorspace for:*
  - *i. Retail, financial and professional services, café/restaurant and drinking establishment uses*
  - *ii. Offices*
  - *iii. Non-residential institutions and community use*
  - *iv. Boathouse*
- *e) Hotel / public house with accommodation*
- *f) Cinema*
- *g) Offices*
- *h) New pedestrian, vehicle and cycle accesses and internal routes, and associated highway works*
- *i) Provision of on-site cycle, vehicle and servicing parking at surface and basement level*
- *j) Provision of public open space, amenity and play space and landscaping*
- *k) Flood defence and towpath works*
- *l) Installation of plant and energy equipment*

Planning permission is also sought in outline with all matters reserved for works to the west of Ship Lane which comprise:

a) *The erection of a single storey basement and buildings varying in height from 3 to 8 storeys*

b) *Residential development*

c) *Provision of on-site cycle, vehicle and servicing parking*

d) *Provision of public open space, amenity and play space and landscaping*

e) *New pedestrian, vehicle and cycle accesses and internal routes, and associated highways works"*

Application B:

"Detailed planning permission for the erection of a three-storey building to provide a new secondary school with sixth form; sports pitch with floodlighting, external MUGA and play space; and associated external works including landscaping, car and cycle parking, new access routes and other associated works"

1.3. Together, Applications A and B described above comprise the 'Proposed Development'.

Background to Submission

1.4. The current applications follow earlier planning applications which were refused by the Greater London Authority (GLA). The refused applications were for:

a) Application A – hybrid planning application for comprehensive mixed use redevelopment of the former Stag Brewery site consisting of:

i. Land to the east of Ship Lane applied for in detail (referred to as 'Development Area 1' throughout); and

ii. Land to the west of Ship Lane (excluding the school) applied for in outline (referred to as 'Development Area 2' throughout).

b) Application B – detailed planning application for the school (on land to the west of Ship Lane).

c) Application C – detailed planning application for highways and landscape works at Chalkers Corner.

1.5. The LBRuT (the Council) originally resolved to grant planning permission for Applications A and B but refuse Application C.

1.6. Following the LBRuT's resolution to approve the Applications A and B, the Mayor called-in the Applications and became the determining authority. The Mayor's reasons for calling in the Applications were set out in his Stage II letter (dated 4 May 2020) but specifically related to concerns regarding what he considered was a low percentage of affordable housing being proposed for the Site and the need to secure a highways solution for the scheme following the LBRuT's refusal of Application C.

1.7. Working with the Mayor's team, the Applicant sought to meaningfully respond to the Mayor's concerns on the Applications. A summary of the revisions to the scheme made and submitted to the GLA in July 2020 is as follows:

i. Increase in residential unit provision from up to 813 units to up to 1,250 units;

ii. Increase in affordable housing provision from (up to) 17%, to 30%;

iii. Increase in height for some buildings of up to three storeys;

iv. Change to the layout of Blocks 18 and 19, conversion of Block 20 from a terrace row of housing to two four storey buildings;

v. Reduction in the size of the western basement, resulting in an overall car parking spaces reduction of 186 spaces and introduction of an additional basement storey under Block 1;

vi. Internal layout changes and removal of the nursing home and assisted living in Development Area 2;

vii. Landscaping amendments, including canopy removal of four trees on the north west corner of the Site; and

viii. Alternative options to Chalkers Corner in order to mitigate traffic impacts through works to highway land only and allow the withdrawal of Application C.

1.8. The application was amended to reflect these changes.

1.9. Notwithstanding this, and despite GLA officers recommending approval, the Mayor refused the applications in August 2021.

1.10. The Mayor's reasons for refusal in respect of Application A were:

i. height, bulk and mass, which would result in an unduly obtrusive and discordant form of development in this 'arcadian' setting which would be harmful to the townscape, character and appearance of the surrounding area;

ii. heritage impact. The proposals, by reason of its height, scale, bulk and massing would result in less than substantial harm to the significance of several listed buildings and conservation areas in the vicinity. The Mayor considered that the less than substantial harm was not clearly and convincingly outweighed by the public benefits, including Affordable Housing, that the proposals would deliver;

iii. neighbouring amenity issues. The proposal, by reason of the excessive bulk, scale and siting of Building 20 and 21 in close proximity to the rear of neighbouring residential properties in Parliament Mews and the rear gardens of properties on Thames Bank, would result in an unacceptable overbearing an unneighbourly impact, including direct overlooking of private amenity spaces. The measures in the Design Code would not sufficiently mitigate these impacts; and

iv. no section 106 agreement in place.

1.11. Application B was also refused because it is intrinsically linked with Application A and therefore could not be bought forward in isolation.

The Proposed New Scheme

1.12. This 3rd iteration of the scheme (Appendix A) seeks to respond directly to the Mayor's reasons for refusal and in doing so also addresses number of the concerns raised by the LBRuT.

1.13. The amendments can be summarised as follows:

v. A revised energy strategy is proposed in order to address the London Plan (2021) requirements;

vi. Several residential blocks have been reduced in height to better respond to the listed buildings along the Thames riverfront and to respect the setting of the Maltings building, identified as a Building of Townscape Merit (BTM) by the LBRuT;

vii. Reconfiguration of layout of Buildings 20 and 21 has been undertaken to provide lower rise buildings to better respond to the listed buildings along the Thames riverfront; and

viii. Chalkers Corner light highways mitigation works.

1.14. The school proposals (submitted under 'Application B') are unchanged. The Applicant acknowledges LBRuT's identified need for a secondary school at the Site and the applications continue to support the delivery of a school. It is expected that the principles to be agreed under the draft Community Use Agreement (CUA) will be the same as those associated with the refused school application (LBRuT ref: 18/0548/FUL, GLA ref: GLA/4172a/07).

1.15. Following the submission of the two planning applications in March 2022, the Applicant has received statutory consultee comments in particular from LBRuT officers, the Health and Safety Executive (HSE), Environment Agency (EA), Thames Water and Sports England. The Applicant has sought to respond to statutory consultee comments which has necessitated some minor scheme changes to the hybrid planning application (Application A only). The proposed amendments include a reduction in 14 residential units (to 1,071) and minor reduction in office (79 sqm GIA) and flexible use (55 sqm GIA) at the ground floor. Two buildings (B01- the cinema and B10) have reduced by no more than one storey each, and another building (B02) facing the riverside has undergone further development of the proposed architectural treatment. Some minor changes have also been made to the drainage, landscape, fire, waste, energy and lighting strategies.

1.16. Overall, it is considered that together, the Applications respond successfully to the concerns raised by stakeholders in respect of the previous schemes and during pre-application discussions on the revised Proposed Development. As a result, it is considered that the scheme now represents a balanced development that delivers the principle LBRuT objectives from the site

Site Description

1.17. The Site (Application A and B) comprises an approximately 9.25 ha parcel of land predominantly occupied by the former Stag Brewery. The former Stag Brewery Site is bounded by Lower Richmond Road to the south, the river Thames and the Thames Bank to the north, Williams Lane to the west and Bulls Alley (off Mortlake High Street) to the east. The Site is bisected by Ship Lane. The Site currently comprises a mixture of large scale industrial brewing structures, large areas of hardstanding and playing fields. The Site is centred on National Grid Reference 520380, 176003, as shown in Figure 1 overleaf.

Scope of the Report

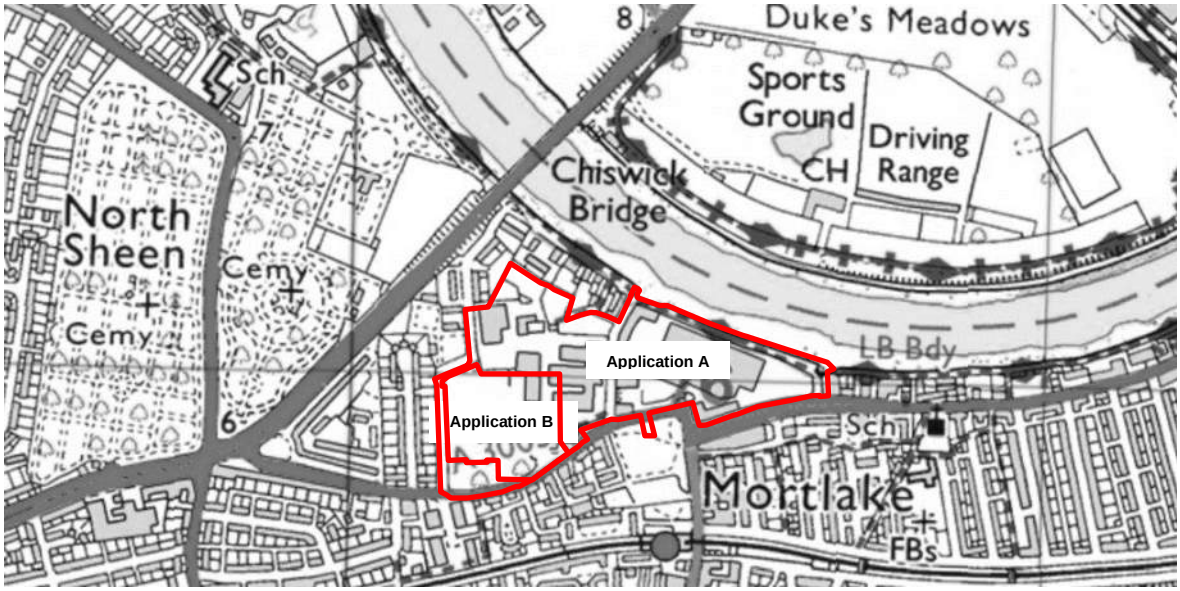
1.18. This report follows the previously submitted 2018 Drainage Strategy, May 2019 Drainage Strategy Addendum, 2020 Drainage Strategy and March 2022 Drainage Strategy to reflect the further amendments to the scheme and to address consultee comments to further reduce surface water run-off rates.

1.19. The latest changes to the scheme are covered in the preceding “The Proposed New Scheme” section of the report.

1.20. Additionally, runoff that discharges from the Site to the Thames Water sewer network has been reduced to achieve the greenfield runoff rate. This has been achieved by upsizing the proposed surface water attenuation features, as covered in the Surface Water Drainage section of the report.

1.21. The report assesses management of foul and surface water runoff from the Site, so as not to have a detrimental effect on the Site or its surroundings, in line with the National Planning Policy Framework (NPPF) and local policy.

Figure 1: Site Location



Key

Development Location

Source: www.bing.com/maps

2. Planning Policy and Guidance

National Planning Policy Framework

2.1. The National Planning Policy Framework[i] (NPPF), last revised in July 2021 is the current national policy on flood risk and drainage.

2.2. The NPPF states that when determining planning applications, Local Planning Authorities (LPA) should ensure that flood risk is not increased elsewhere. Major developments should incorporate SuDS unless there is clear evidence that this would be inappropriate. The systems used should:

- Take account of advice from the Lead Local Flood Authority (LLFA);
- Have appropriate proposed minimum operational standards;
- Have maintenance arrangements in place to ensure an acceptable standard of operation for the lifetime of the development; and
- Where possible, provide multifunctional benefits.

Planning Practice Guidance

2.3. The Planning Practice Guidance (PPG)[ii], last updated in June 2021 provides additional guidance to LPAs to ensure effective implementation of the planning policies set out within the NPPF regarding development in areas at risk of flooding.

2.4. The PPG states that developers and LPAs should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development, and the appropriate application of SuDS.

Non-statutory Technical Standards for Sustainable Drainage Systems

2.5. The Non-statutory Technical Standards for Sustainable Drainage Systems[iii] was published in March 2015 and is the current guidance for the design, maintenance and operation of SuDS.

2.6. The standards set out that the peak runoff rates should be as close as is reasonably practicable to the greenfield rate, but should never exceed the pre-development runoff rate.

2.7. The standards also set out that the drainage system should be designed so that flooding does not occur on any part of the Site for a 1 in 30 year rainfall event, and that no flooding of a building (including basement) would occur during a 1 in 100 year rainfall event.

2.8. It is also noted within the standards that pumping should only be used when it is not reasonably practicable to discharge by gravity.

London Plan and London Plan Supplementary Planning Guidance

2.9. The London Plan[iv] sets out the Mayor's policies for development in London and was published in December 2020 and adopted in March 2021.

2.10. Policy SI 13 regarding Sustainable Drainage indicates that Development proposals should aim to achieve greenfield run-off rates and ensure that surface water run-off is managed as close to its source as possible. There should also be a preference for green over grey features. Furthermore,

the policy outlines a specific drainage hierarchy and indicates that permeable paving should be used unless there are robust justifications, these items are discussed in further detail under Section 4 of this report.

Water Industry Act

2.11. Thames Water is the local Sewerage Undertaker and provides sewerage services under the guidance of the Water Industry Act 1991.

2.12. Under Section 106 of the Water Industry Act, the developer currently maintains the automatic right to 'communicate' with the public foul water sewer system.

London Borough of Richmond Upon Thames Local Plan

2.13. LBRuT's adopted their Local Plan in 2018[v]. With regards to drainage, Policy LP21 'Flood Risk and Sustainable Drainage' states the following:

C. The Council will require the use of Sustainable Drainage Systems (SuDS) in all development proposals. Applicants will have to demonstrate that their proposal complies with the following:

1. A reduction in surface water discharge to greenfield run-off rates wherever feasible.

2. Where greenfield run-off rates are not feasible, this will need to be demonstrated by the applicant, and in such instances, the minimum requirement is to achieve at least a 50% attenuation of the site's surface water runoff at peak times based on the levels existing prior to the development.

2.14. LBRuT published a Planning Guidance Document – Delivering SuDS in Richmond[vi] in 2015, which provides further guidance on the implementation of SuDS.

2.15. It further states that to reduce the risk of surface water and sewer flooding, all development proposals in the borough that could lead to changes to or have impacts on, surface water runoff are required to follow the London Plan drainage hierarchy:

- Store rainwater for later use;
- Use infiltration techniques, such as porous surfaces in non-clay areas;
- Attenuate rainwater in ponds or open water features for gradual release to a watercourse;
- Attenuate rainwater by storing in tanks or sealed water features for gradual release to a watercourse;
- Discharge rainwater direct to a watercourse;
- Discharge rainwater to a surface water drain; and
- Discharge rainwater to a combined sewer.

3. Existing Drainage

3.1. Thames Water sewer records (Appendix B) indicate that several sewers are present in the vicinity of and crossing the Site, as indicated in Table 1.

Table 1: Existing Sewers Associated with the Site

Location	Sewer
Crossing through the north-west of the Site.	225mm diameter Thames Water foul sewer.
Within north-west of the Site.	Two Thames Water foul rising mains.
Along north-eastern boundary of the Site along Thames towpath.	686mm diameter combined Thames Water sewer.
West of the Site along Williams Lane.	900mm diameter Thames Water surface water sewer.
South of the Site along Lower Richmond Road.	600mm diameter Thames Water surface water sewer.
	750mm diameter and 225mm diameter Thames Water foul water sewer.
Centre of the Site along Ship Lane.	600mm diameter Thames Water surface water sewer.
	225mm diameter Thames Water foul water sewer.

3.2. Following review of the existing onsite drainage records for the Site (Appendix C) it is understood that existing drainage scenario is as follows:

- Existing foul flows discharge to the Thames Water sewer network;
- Existing surface water flows from the north-east of the Site discharge into the Thames via an existing outfall; and
- Existing surface water flows from the remainder of the Site discharge to the Thames Water sewer network at various connection points.

3.3. The existing drainage and connections would be confirmed by a CCTV drainage survey post planning.

4. Surface Water Drainage

4.1. Following the submission of the two planning applications in March 2022, the Applicant has received statutory consultee comments in particular from LBRuT officers, the Health and Safety Executive (HSE), Environment Agency (EA), Thames Water and Sports England. The Applicant has sought to respond to statutory consultee comments which has necessitated some minor scheme changes to the hybrid planning application. The proposed amendments include a reduction in 14 residential units (to 1,071) and minor reduction in office (79 sqm GIA) and flexible use (55 sqm GIA) at the ground floor. Two buildings (B01- the cinema and B10) have reduced by no more than one storey each, and another building (B02) facing the riverside has undergone further development of the proposed architectural treatment. Some minor changes have also been made to the drainage, landscape, fire, waste, energy and lighting strategies.

4.2. Since the initial 2018 Drainage Strategy, submitted with the 2018 Applications that LBRuT Resolved to Approve, the proposals have been developed to reflect the comments from relevant consultees. In particular, LBRuT comments as the Lead Local Flood Authority that the Development should reduce the proposed surface water run-off rate and aim to achieve the 100 year greenfield runoff rate. This latest Drainage Strategy incorporates the previous changes and comments and has now been updated to reflect the latest scheme proposals. A detailed list of the consultee comments and the resulting updates to the drainage strategy have been captured in a standalone consultee response letter (WIE18671-114-BN-1.3.4-FR&D Response).

4.3. As with the previous submissions, all existing public highway areas/land within the application boundary would continue to drain as existing. Drainage design here will be addressed as part of wider highways drainage design under the responsibility of the highway authority. Accordingly, the proposed drainage strategy included herein covers the Stag Brewery area of the Site only.

4.4. The proposed surface water drainage system would be designed to convey surface water only, with foul water being discharged separately. The design would be in accordance with BS EN 752 – Drain and Sewer Systems Outside Buildings[vii], BS EN 12056 – Gravity Drainage Systems Inside Buildings[viii], and Approved Document H of Building Regulations[ix].

4.5. In line with Building Regulations and the PPG, the following hierarchy of surface water disposal should be adhered to, in decreasing order of preference.

i. Discharge to ground;
ii. Discharge to a surface water body;
iii. Discharge to a surface water sewer; and
iv. Discharge to a combined sewer.

Discharge to Ground

4.6. According to the Preliminary Risk Assessment by Waterman[x] (January 2022), the Site is underlain by clay, with the likelihood of high groundwater due to the Site's proximity to the River Thames. The report also states the possibility of contamination due to the previous industrial uses on Site. Therefore, the use of infiltration techniques is unlikely to be feasible for the majority of the Site.

4.7. As requested by the Greater London Authority (GLA) (Appendix D), it is proposed that the 3G sports pitch proposed in the south west of the Site would drain freely into the ground. This is subject to ground investigations, which would be undertaken during detailed design. If results show that infiltration is not feasible, then a tank or similar attenuation feature would be provided and surface water runoff from the pitch would be directed into the surrounding Thames Water network. The GLA agreed (Appendix D) that this approach satisfies their aspirations.

Discharge to a Surface Water Body

4.8. The second most sustainable option would be to discharge directly to a surface water body. Due to the proximity to the River Thames, the north-eastern part of the Site would discharge directly into the River.

4.9. An existing residential area lies between the western part of the Site and the River Thames. As such, there is no means to provide a connection directly into the Thames from the western or south-eastern part of the Site.

Discharge to a Sewer

4.10. Thames Water sewer records (Appendix B) indicate that several surface water sewers are present in the vicinity of the Site, which ultimately connect into the River Thames. The on-Site sewer records (Appendix C) indicate that the majority of the Site currently drains into the Thames Water surface water sewer network.

4.11. Areas of the Site where a direct connection into the River Thames is not feasible would instead connect to the Thames Water sewer network as per the existing situation.

Sustainable Drainage Systems

4.12. The most sustainable way to drain surface water runoff is through the use of Sustainable Drainage Systems (SuDS), which need to be considered in relation to Site-specific constraints.

4.13. SuDS mimic the natural drainage system and provide a method of surface water drainage which can decrease the quantity of water discharged, and hence reduce the risk of flooding. In addition to reducing flood risk, SuDS features improve water quality, and provide biodiversity and amenity benefits.

4.14. The potential for SuDS was considered throughout the design process with workshops being held by the design team to discuss the various constraints and opportunites for each of the SuDS devices. In line with the London Plan Policy SI13 “Sustainable Drainage”, rainwater harvesting and parmeable paving would be incorporated along with a number of other SuDS features, as outlined in Table 2 below. A completed LBRuT SuDS proforma for the Development is provided in Appendix J.

Table 2: Sustainable Drainage Techniques

Device	Description	Constraints/Comments	✓/✗
Green / brown roofs (source control).	Provide soft landscaping at roof level which reduces surface water runoff.	Green roofs are proposed throughout the Development (Appendix A).	✓
Infiltration devices & Soakaways (source control).	Store runoff and allow water to percolate into the ground via natural infiltration.	The underlying geology, high groundwater levels, and potential contamination risks preclude the potential for formal infiltration at this stage.	✗
Pervious surfaces (source control).	Storm water is allowed to infiltrate through the surface into a storage layer, from which it can either infiltrate and / or slowly release to sewers.	The underlying geology, high groundwater levels, and potential contamination risks preclude the potential for formal infiltration. However, lined permeable paving is proposed throughout the Development.	✓
Rainwater harvesting (source control).	Reduces the annual average rate of runoff from a site by reusing water for non-potable uses e.g. toilet flushing or water butts.	Rainwater harvesting butts are proposed throughout the Development. However, the reduction of surface water runoff cannot be quantified with certainty as this would be dependent on the demand for harvested rainwater.	✓
Swales (permeable conveyance).	Broad shallow channels that convey / store runoff, and allow infiltration (ground conditions permitting).	The underlying geology, high groundwater level, and potential contamination risks preclude the potential for formal infiltration. The tight urban nature of the Site precludes the inclusion of swales.	✗
Filter drains & perforated pipes (permeable conveyance).	Trenches filled with granular materials (which are designed to take flows from adjacent impermeable areas) that convey runoff while allowing infiltration (ground conditions permitting).	The underlying geology, high groundwater level, and potential contamination risks preclude the potential for formal infiltration.	✗
Filter Strips (permeable conveyance).	Wide gently sloping areas of grass or dense vegetation that remove pollutants from runoff from adjacent areas.	The underlying geology, high groundwater level, and potential contamination risks preclude the potential for formal infiltration.	✗
Infiltration basins (end of pipe treatment).	Depressions in the surface designed to store runoff and allow infiltration through the base.	The underlying geology, high groundwater level, and potential contamination risks preclude the potential for formal infiltration.	✗

Device	Description	Constraints/Comments	✓/✗
Bioretention Systems / Rain Garden (end of pipe treatment).	A shallow landscaped depression which allows runoff to pond temporarily on the surface before filtering through vegetation and underlying soils.	The underlying geology, high groundwater and potential contamination risks preclude the potential for formal infiltration. However, a lined rain garden is proposed along the green link in the eastern part of the Site.	✓
Dry ponds (end of pipe treatment)	Depressions in the surface designed to store runoff without infiltration through the base.	Due to the proposed basement extents, the incorporation of ponds would not be feasible.	✗
Attenuation underground (end of pipe treatment)	Oversized pipes or geo-cellular tanks designed to store water below ground level.	Due to the tight urban nature of the site, attenuation tanks are required to restrict runoff to the required rates.	✓

Green Roofs

4.15. Green roofs would provide a bio-diverse habitat in addition to capturing rainwater, naturally slowing the rate of runoff, and providing water quality benefits. The proposed locations for green roofs are shown on the development proposals in Appendix A.

Rainwater Harvesting

4.16. The inclusion of rainwater harvesting would decrease the demand on potable water, and could be used for irrigation of the proposed landscaping. However, it cannot be guaranteed that there would always be sufficient demand for recycled water to ensure an empty tank is available prior to a high intensity rainfall event, when the storage is most required. Therefore, rainwater harvesting has not been taken into account in the surface water runoff calculations presented later in the drainage strategy.

4.17. Rainwater harvesting butts are proposed throughout the Development to increase water efficiency and reduce the amount of surface water runoff.

Permeable Paving (Lined)

4.18. Permeable paving would provide water quality benefits as well as attenuating flows within the lined sub-base structure. The inclusion of lined permeable paving is proposed throughout the Development (as shown on the drainage strategy drawing, Appendix E). Rainwater would percolate through the granular sub-base prior to being attenuated in geo-cellular tanks located beneath.

Rain Gardens

4.19. Rain gardens are planted areas where surface water is directed into, providing primarily water quality benefits as the water percolates through the soil as well as some attenuation. Rain gardens are proposed along the eastern edge of the green link in the eastern part of the Site.

Underground Attenuation

4.20. Due to the constrained urban nature of the Site, lined geo-cellular attenuation tanks are required to significantly restrict surface water runoff. If deemend necessary during detailed design, these would include pollutant-intercepting biomats, which float on the water and are designed to intercept and treat any potential residual emulsified oils (residual hydrocarbons) that may be present within the surface water. These provide a sutainable solution as it is self-maintaining and 100% recyclable.

Proposed Surface Water Drainage Strategy

Discharge to River Thames

4.21. In line with the drainage hierarchy, it is proposed to discharge surface water runoff from the north-east part of the Site into the adjacent River Thames. Due to the tidal nature of the Thames in this location, LBRuT accept that surface water runoff can discharge to it unrestricted (Appendix F). In the existing situation, the majority of this area drains into the Thames Water network. The proposals therefore reduce contributing area discharging into the public sewer network compared to the existing situation. The proposals to discharge to the River Thames remain unchanged since the 2018 drainage strategy.

4.22. It is important to include the potential for tide locking in the assessment, to ensure that if the outfall into the Thames becomes surcharged (i.e. if the water level in the river rises above the level of the outfall), any rain falling on the Site during this time would not cause flooding within the Development. For the purpose of this assessment the Mean High Water Spring Level (MHWS) of 4.13m AOD has been used (as indicated in the 2017 PLA Tide Table in Appendix G), plus a 1.1m for sea level rise over the next 100 years (in accordance with EA guidance). This gives a tide locking design level to be 5.23m AOD. At this design level, the outfall would be surcharged for 5.4 hours during a tidal surge (Appendix G includes tide locking calculations).

4.23. The north-east of the Site would discharge unrestricted into the River Thames via three outfalls; the existing outfall would be reused if possible subject to CCTV survey and detailed design.

4.24. A proposed single-level basement (including a sub-basement under Building 01) extends across the majority of the eastern part of the Site, restricting potential drainage routes to the River Thames and therefore the size of the catchment that could drain to the River Thames. In order to maximise the size of the catchment that could drain to the River Thames, a shallow channel system made up of permavoid tanks is proposed to convey surface water towards the River (note this is for conveyance, not attenuation).

4.25. The channels would be 150mm deep and 3,200mm in width (subject to detailed design) and laid flat above the ground floor slab. At the boundary of the basement the channels would be picked up by traditional below ground drainage and directed to the River Thames.

4.26. To ensure this system would work under storm conditions, a MicroDrainage network model has been developed. The worst-case scenario (longest channel with largest incoming catchment area) has been assessed and the potential for tide-locking has been incorporated in the analysis. The results (Appendix G) indicate no flooding for the 1 in 100 year plus 40% climate change storm event.

Discharge to Thames Water Sewers

4.27. It is proposed to discharge surface water runoff from the remaining areas of the Site (that cannot reach the River Thames directly) to the existing Thames Water network. The London Plan ideally requires developments to restrict surface water runoff to the greenfield rate. However, it states that where it can be justified that this volume cannot be incorporated within the development, 50% of the existing rate can be acceptable.

4.28. The area of the Site which currently drains into the Thames Water network is 5.69ha. This excludes the existing green area in the south-west of the Stag Brewery Site, to the south of the proposed school, as it would remain a soft landscaped park area as part of the Development. By directing flows from the north-eastern part of the Stag Brewery Site directly to the River Thames, the area that drains into the Thames Water network is reduced to 4.84ha.

4.29. The greenfield runoff rate (Q100) has been calculated to be 7.7 l/s/ha (or 37.4 l/s for the Site) (Appendix H). The existing runoff rate has been calculated for the 1 in 100 year 60 minute event using the Modified Rational Method. This gives an existing runoff rate off 812.3 l/s (Appendix H) for the Site.

4.30. The Site has been split into 7 drainage catchments, mimicking the existing situation as far as practicable. The attenuation provision within each catchment has been maximised to achieve the greenfield runoff rate. MicroDrainage Source Control module (Appendix H) was used to calculate the required attenuation, which results in a 95% reduction in existing runoff rates. Source Control includes for all storm durations and takes account of a 40% increase in rainfall intensity to account for climate change.

Table 3: Proposed Discharge Rates and Attenuation Provision

Catchment	Area (ha)	Existing Rate (l/s)	Proposed Rate (l/s)	Attenuation (m^3)	Betterment (%)
East part of the Site – 1	0.30	43.44	2.4	251	95
East part of the Site – 2	0.25	35.90	1.9	210	95
East part of the Site – 3	0.18	26.17	1.4	150	95
West part of the – School	1.31	187.18	10.1	1095	95
West part of the Site – 4	1.07	153.30	8.3	893	95
West part of Site – 5	0.92	131.88	7.1	769	95
West part of the Site – 6	0.79	112.76	6.1	319	95
Sub-Total	4.84	690.64	37.4	3686	95

Catchment	Area (ha)	Existing Rate (l/s)	Proposed Rate (l/s)	Attenuation (m^3)	Betterment (%)
Total*	**5.69**	**812**	**37.4**	**3686**	**95**

*Includes area of the Site which is proposed to discharge unrestricted into the River Thames.

4.31. The proposed drainage achieves the greenfield runoff rate, which is the ideal that drainage design should aim to achieve. The resulting 95% reduction in runoff far exceeds the minimum acceptable reduction (50%), in line with the London Plan.

4.32. The proposed geo-cellular tanks are proposed outside of the basement extent and below the extent of the proposed tree pits.

4.33. There is limited space for attenuation features to serve the proposed residential units in the north-west of the Site due to the road and pavements to be offered up for adoption. A proposed surface water sewer within the road would pick up surface water from the residential units and associated hardstanding areas and discharge into the Thames Water surface water sewer to the west. Attenuation would be provided by two offline attenuation tanks; surface water would back up into these tanks from the flow control structure prior to discharge into the public sewer.

4.34. Existing surface water connections into the surrounding public sewer network would be re-used where feasible, which would be determined following a CCTV survey during detailed design. Where new connections are required, these would be made to the public sewer system through a Section 106 Agreement with Thames Water, under the Water Industry Act 1991.

Water Quality

4.35. Appropriate treatment would be incorporated into the drainage system to ensure that the quality of water discharged is acceptable in line with the CIRIA SuDS Manual[xi]. This would be achieved through the incorporation of green roofs, rain garden, and permeable paving sub-base storage, as demonstrated on the sitewide urban green factor drawing (Appendix K). A biomat filtration system, downstream defender, petrol interceptor and/or other hard engineered solution would also be incorporated if deemed necessary during detailed design to ensure discharge is appropriately treated. The GLA have confirmed (Appendix D) that the proposed SuDS provision is in line with their aspirations.

4.36. The extensive basement proposed as part of the Development includes mainly car parking. It is anticipated that any surface water within the basement would pass through a petrol interceptor prior to being pumped into the foul network; details and requirements are to be confirmed during detailed design.

Sustainable Drainage Systems Maintenance Plan

4.37. The on-Site drainage networks and SuDS would likely be privately managed and maintained for the lifetime of the Development, ensuring they remain fit for purpose and function appropriately. The management company / operator would be appointed post-planning.

4.38. The PPG sets out the requirement for developers to consider the operation, management and maintenance of all SuDS.

4.39. Post construction the on-Site management company (who would be appointed post-planning) would be responsible for the SuDS included in the scheme. Table 4 outlines what maintenance is anticipated for the proposed / potentially proposed SuDS features.

Table 4: Maintenance Plan for SuDS

SuDS and Task	Frequency
Green Roofs	
Inspect system to replace dead plants as required and ensure plants are sufficiently watered (during establishment period).	As required.
Inspect system to replace dead plants (post establishment period).	Annually (in autumn).
Remove nuisance and invasive vegetation, including weeds.	Six monthly or as required.
Inspect system to ensure substrate is not eroded and inlet / outlet drains are not blocked.	Annually or as required (after severe storms).
Rainwater Harvesting	
Inspect system for debris / blockages.	Annually or as required.
Permeable Paving	
Brushing and vacuuming.	Once a year.
Stabilise and mow contributing adjacent areas.	As required.
Removal of weeds or management using glyphosphase applied directly into the weeds.	As required.
Remediate any landscaping which, through.vegetation maintenance of soil slip, has been raised to within 50mm of the level of the paving.	As required.
Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance or a hazard to users, and replace lost jointing material.	As required.
Rehabilitation of surface and upper substructure by remedial sweeping.	Every 10 to 15 years as required (if infiltration performance is reduced due to significant clogging).
Initial inspection.	Monthly for three months after installation.
Inspect for evidence of poor operation and / or weed growth – if required, take remedial action.	Three-monthly, 48 hours after large storms in first six months.
Inspect silt accumulation rates and establish appropriate brushing frequencies.	Annually.
Monitor inspection chambers.	Annually.

SuDS and Task	Frequency
Rain Garden	
Inspect infiltration surfaces for silting and ponding, record de-watering time of the facility and assess standing water levels in underdrain to determine if maintenance is necessary.	Quarterly.
Check operation of the underdrains by inspection of flows after rain.	Annually.
Assess plants for disease infection, poor growth, invasive species etc., an replace as necessary.	Quarterly.
Inspect inlets and outlets for blockage.	Quarterly.
Remove litter and surface debris and weeds.	Quarterly.
Repair minor accumulations of silt by raking away surface mulch, scarifying surface of medium and replacing mulch.	As required.
Remove and replace filter medium and vegetation above.	As required by likely to be > 20 years.
Attenuation Tank	
Inspect and identify any areas that are not operation correctly. If required, take remedial action.	Monthly for 3 months, then annually.
Remove debris from catchment surface, where it may cause risks to performance.	Monthly.
For systems where rainfall infiltrates into the tank from above, check surface of filter for blockage by sediment, algae or other matter, remove and replace surface infiltration medium as necessary.	Annually.
Repair/rehabilitate inlets, outlet, and overflows and vents.	As required.
Inspect/check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed.	Annually.
Survey inside of tank for sediment build-up and remove if necessary.	Every 5 years or as required.

5. Foul Drainage

5.1. The proposed foul drainage would be designed in accordance with BS EN 752 – Drain and Sewer Systems Outside Buildings[vii], BS EN 12056 – Gravity Drainage Systems Inside Buildings[viii], and Approved Document H of Building Regulations[ix].

5.2. It is understood that foul flows from the existing Site discharge to the Thames Water foul network in the surrounding highways. It is proposed to mimic this scenario, with new connections into the sewers on Mortlake High Street, Lower Richmond Road, Ship Lane, and Williams Lane according to the proposed building layout. The indicative connection points are shown on the drainage layout (Appendix E).

5.3. The existing and proposed foul discharge rates have been calculated using the water consumption method at 14.4 l/s and 24.1 l/s respectively (Appendix I).

5.4. It is understood from the existing onsite drainage records (Appendix C) that there are some surface water connections into the foul sewer. The proposed surface water drainage strategy will remove these connections and therefore reduce the contribution to the foul network during rainfall events. The exact reduction in surface water contribution has not been calculated as the impermeable areas contributing runoff to the foul network are yet to be verified.

5.5. Thames Water have previously confirmed (Appendix B) that there is capacity for the proposed surface water and foul flows. Although the scheme proposals have changed since then, the proposed flow rates have decreased for surface water and slightly increased for foul water, thus it is not anticipated that the network has sufficient capacity to serve the Development.

5.6. Existing connections would be re-used where feasible. Where new connections are required, these would be made to the public sewer system through an S106 Agreement with Thames Water, under the Water Industry Act 1991.

6. Impact on Existing Drainage Infrastructure

6.1. Easements to existing drainage infrastructure crossing the Site need to be allowed for to ensure it is not impacted upon. The Development complies with all necessary easements, and where these are not possible, appropriate diversions are proposed.

6.2. The 225mm diameter Thames Water foul sewer crossing the Site is proposed to be diverted as shown on the drainage plan in Appendix E. The two rising mains only service the existing uses within the Site (now redundant and dis-used) and are proposed to be abandoned as part of the Development. An easement of 4.0m is allowed for to the combined sewer along the north-eastern boundary of the Site to ensure it is not impacted upon as it conveys off-Site flows.

7. Conclusions

7.1. The drainage strategy outlined in this report reflects the minor changes to the plans but follows the principles of and remains in line with the 2020 strategy supported by the GLA officers and LBRuT.

7.2. Surface water runoff from the northeast of the Site would discharge by gravity to the River Thames (adjacent to the northern boundary of the Site) via three outfalls. As the River Thames is tidal in this location, direct discharge to the river would be unrestricted. The area to discharge into the River Thames has been maximised using shallow geo-cellular conveyance channels, in order to relieve the Thames Water network of flows. Surface water runoff from the remainder of the Site would discharge via gravity to the Thames Water sewer network in the surrounding highways, maximising the attenuation volume within each drainage catchment to restrict surface water flows as much as possible.

7.3. In response to comments received from LBRuT on 27 May 2022, improvements to the proposed surface water run-off rates have been made since the previously submitted drainage strategy in March 2022. Based on an area of 5.69ha currently draining into the Thames Water network, the existing discharge rate was calculated to be 812.3 l/s. The incorporation of permeable paving, rain gardens, and underground attenuation tanks achieves a reduction of surface water flows to the greenfield runoff rate of 37.4l/s, equal to a 95% reduction compared to the existing rate. This improvement in the proposed surface water run-off has been achieved by increasing the size of the below ground attenuation tanks without the need for further design changes above ground or to below ground structures.

7.4. Appropriate treatment would be incorporated into the drainage system to ensure that the quality of water discharged is acceptable. This would be achieved through the incorporation of green roofs, permeable paving aggregate sub-base, rain gardens, and rainwater harvesting. A biomat filtration system within the attenuation tanks and downstream defenders or similar hard engineered solution would also be incorporated if deemed necessary at detailed design to ensure discharge is appropriately treated.

7.5. Foul flows from the Site would discharge by gravity the Thames Water sewer network. The existing and proposed foul discharge rates have been calculated using the water consumption method at 14.4l/s and 24.1 l/s respectively.

7.6. The on-Site drainage networks and Sustainable Drainage Systems would be privately managed and maintained for the lifetime of the Development, ensuring they remain fit for purpose and function appropriately. The management company / operator would be appointed post-planning. The school drainage system (Application B) would be delivered and maintained separately from the Application A site.

7.7. This report confirms that surface water runoff from the Site (Applications A and B) can be managed sustainably to ensure that flood risk is not increased elsewhere. It is considered that the information provided within this report satisfies the requirements of the National Planning Policy Framework (NPPF), the London Plan, and the London Borough of Richmond upon Thames Local Plan.

8. References

[i] Ministry of Housing, Communities and Local Government, July 2021. National Planning Policy Framework.

[ii] Ministry of Housing, Communities and Local Government, June 2021. Planning Practice Guidance.

[iii] Department for Environment, Food and Rural Affairs, March 2015. Non-statutory technical standards for sustainable drainage systems.

[iv] Greater London Authority, March 2021. London Plan.

[v] London Borough of Richmond upon Thames, July 2018: Local Plan As Adopted 3 July 2018 and 3 March 2020.

[vi] London Borough of Richmond Upon Thames, February 2015. Planning Guidance Document – Delivering SuDS in Richmond.

[vii] British Standards Institution, April 2008. BS EN 752:2008 – Drain and Sewer Systems Outside Buildings.

[viii] British Standards Institution, September 2000. BS EN 12056-2:2000 – Gravity Drainage Systems Inside Buildings.

[ix] HM Government, 2010. The Building Regulations 2010: H, Drainage and Waste Disposal.

[x] Waterman Infrastructure & Environment Ltd, 2022. Preliminary Risk Assessment.

[xi] CIRIA C753, 2015. The SuDS Manual.

APPENDICES

A. Development Proposals

SQUIRE & PARTNERS

Stag Brewery
Schedule of Gross External Areas - Revised Enlarged Scheme
Rev J

13.07.22

Building Level	Building 1				Building 2				Building 3			Building 4		
	Cinema	Office	Flexible Use (Café)	TOTAL	Residential (Private)	Flexible Use	Car Park	TOTAL	Residential (Private)	Car Park	TOTAL	Residential (Private)	Flexible Use	TOTAL
	sq.ft	*sq.ft*	*sq.ft*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
12														
11														
10														
9														
8					1,029			1,029						
7					16,848			16,848				1,477		1,477
6					20,239			20,239				1,485		1,485
5					20,638			20,638	8,612		8,612	6,956		6,956
4					20,638			20,638	10,543		10,543	6,956		6,956
3		5,168		5,168	20,638			20,638	10,722		10,722	6,956		6,956
2		10,376		10,376	20,638			20,638	10,722		10,722	6,956		6,956
1		10,376		10,376	20,239			20,239	10,722		10,722	5,756	967	6,723
G	4,314	4,603	1,491	10,408	13,694	6,220	1,424	21,338	9,528	2,105	11,633	2,176	4,780	6,956
B1	9,834			9,834										
B2	6,702			6,702										
Total sqf	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
	20,850	**30,523**	**1,491**	**46,162**	**154,601**	**6,220**	**1,424**	**162,245**	**60,849**	**2,105**	**62,954**	**38,718**	**5,747**	**44,465**
Total sqm	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*
	1,937	**2,836**	**139**	**4,289**	**14,363**	**578**	**132**	**15,073**	**5,653**	**196**	**5,849**	**3,597**	**534**	**4,131**

Areas are approximate only and subject to change through rights of light considerations, planning, design and development

Stag Brewery
Schedule of Gross External Areas - Revised Enlarged Scheme
Rev J

13.07.22

Combined Plot 1A						
Building Level	Residential (Private)	Flexible Use	Cinema	Office	Car Park	PLOT 1A TOTAL
	sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
12	0	0				0
11	0	0				0
10	0	0				0
9	0	0				0
8	1,029	0				1,029
7	18,325	0				18,325
6	21,724	0				21,724
5	36,206	0				36,206
4	38,137	0				38,137
3	38,316	0		5,168		43,484
2	38,316	0		10,376		48,692
1	36,717	967		10,376		48,060
G	25,398	12,491	4,314	4,603	3,529	50,335
B1			9,834		81,395	91,229
B2			6,702			6,702

	sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
Total	**254,168**	**13,458**	**20,850**	**30,523**	**84,924**	**403,923**

	sq.m	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*
Total	**23,613**	**1,250**	**1,937**	**2,836**	**7,890**	**37,525**

Stag Brewery

Schedule of Gross External Areas - Revised Enlarged Scheme

Rev J

13.07.22

Building 5			
Flexible Use	Hotel	Office	TOTAL
sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*
9,485	6,435	2,708	18,628
4,543	5,129	3,338	13,010
	3,554	4,376	7,930
	5,737	12,172	17,909
sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*
14,028	**20,855**	**22,594**	**57,477**
sq.m	*sq.m*	*sq.m*	*sq.m*
1,303	**1,937**	**2,099**	**5,340**

Building 6		
Residential (Private)	Flexible Use	TOTAL
sq.ft.	*sq.ft.*	*sq.ft.*
3,433	5,137	8,570
8,570		8,570
8,570		8,570
8,570		8,570
3,701		3,701
sq.ft.	*sq.ft.*	*sq.ft.*
32,844	**5,137**	**37,981**
sq.m	*sq.m*	*sq.m*
3,051	**477**	**3,529**

Building 7		
Residential (Private)	Flexible Use	TOTAL
sq.ft.	*sq.ft.*	*sq.ft.*
8,860	6,118	14,978
14,334		14,334
14,654		14,654
14,654		14,654
14,654		14,654
14,654		14,654
11,922		11,922
457		457
sq.ft.	*sq.ft.*	*sq.ft.*
108,523	**6,118**	**114,641**
sq.m	*sq.m*	*sq.m*
10,082	**568**	**10,650**

Building 8		
Residential (Private)	Flexible Use	TOTAL
sq.ft.	*sq.ft.*	*sq.ft.*
10,746	6,000	16,746
16,254		16,254
16,374		16,374
16,374		16,374
16,374		16,374
16,374		16,374
14,884		14,884
6,497		6,497
sq.ft.	*sq.ft.*	*sq.ft.*
130,265	**6,000**	**136,265**
sq.m	*sq.m*	*sq.m*
12,102	**557**	**12,659**

Stag Brewery

Schedule of Gross External Areas - Revised Enlarged Scheme

Rev J

13.07.22

Combined Plot 1B						
Building Level	Residential (Private)	Flexible Use	Hotel	Office	Car Park	PLOT 1B TOTAL
	sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
12	0	0	0	0		0
11	0	0	0	0		0
10	0	0	0	0		0
9	0	0	0	0		0
8	6,954	0	0	0		6,954
7	26,806	0	0	0		26,806
6	30,722	0	0	0		30,722
5	31,028	0	0	0		31,028
4	34,729	0	0	0		34,729
3	39,598	0	0	0		39,598
2	39,598	0	3,554	4,376		47,528
1	39,158	0	5,737	12,172		57,067
G	23,039	26,740	6,435	2,708		58,922
B1	0	4,543	5,129	3,338	81,527	94,537
B2						

	sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
Total	**271,632**	**31,283**	**20,855**	**22,594**	**81,527**	**427,891**

	sq.m	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*
Total	**25,235**	**2,906**	**1,937**	**2,099**	**7,574**	**39,752**

Stag Brewery

Schedule of Gross External Areas - Revised Enlarged Scheme

Rev J

13.07.22

Building 9		
Residential (Private)	Flexible Use	TOTAL
sq.ft.	*sq.ft.*	*sq.ft.*
3,032		3,032
5,499		5,499
5,499		5,499
5,499		5,499
1,228	4,271	5,499
sq.ft.	*sq.ft.*	*sq.ft.*
20,757	**4,271**	**25,028**
sq.m	*sq.m*	*sq.m*
1,928	**397**	**2,325**

Building 10			
Residential (Potential Affordable)	Flexible Use	Car Park	TOTAL
sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*
4,250			4,250
9,803			9,803
9,803			9,803
9,803			9,803
5,486	1,200	3,100	9,786
sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*
48,948	**1,200**	**3,100**	**53,248**
sq.m	*sq.m*	*sq.m*	*sq.m*
4,547	**111**	**288**	**4,947**

Building 11		
Residential (Private)	Flexible Use	TOTAL
sq.ft.	*sq.ft.*	*sq.ft.*
7,721		7,721
9,245		9,245
9,570		9,570
9,570		9,570
9,570		9,570
9,245		9,245
6,318	3,546	9,864
sq.ft.	*sq.ft.*	*sq.ft.*
70,809	**3,546**	**74,355**
sq.m	*sq.m*	*sq.m*
6,578	**329**	**6,908**

Building 12		
Residential (Private)	Flexible Use	TOTAL
sq.ft.	*sq.ft.*	*sq.ft.*
5,456		5,456
7,771		7,771
8,838		8,838
8,838		8,838
8,838		8,838
8,838		8,838
4,952	4,506	9,458
sq.ft.	*sq.ft.*	*sq.ft.*
62,369	**4,506**	**66,875**
sq.m	*sq.m*	*sq.m*
5,794	**419**	**6,213**

Combined Plot 1C						
Building Level	Residential (Private)	Residential (Potential Affordable)	Residential (Total)	Flexible Use	Car Park	PLOT 1C TOTAL
	sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
12	0	0	0	0		0
11	0	0	0	0		0
10	0	0	0	0		0
9	0	0	0	0		0
8	0	0	0	0		0
7	13,177	0	13,177	0		13,177
6	17,016	0	17,016	0		17,016
5	18,408	4,250	22,658	0		22,658
4	21,440	9,803	31,243	0		31,243
3	23,907	9,803	33,710	0		33,710
2	23,907	9,803	33,710	0		33,710
1	23,582	9,803	33,385	0		33,385
G	12,498	5,486	17,984	13,523	3,100	34,607
B1					47,619	47,619
B2						
Total	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
	153,935	**48,948**	**202,883**	**13,523**	**50,719**	**267,125**
Total	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*
	14,301	**4,547**	**18,848**	**1,256**	**4,712**	**24,817**

Stag Brewery
Schedule of Gross External Areas - Revised Enlarged Scheme
Rev J

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Building 13		Building 14		Building 15		Building 16		Building 17		Combined Plot 2A			
Residential (Private)	TOTAL	Residential (Private)	TOTAL	Residential (Private)	TOTAL	Residential (Private)	TOTAL	Residential (Private)	TOTAL	Building Level	Residential (Private)	Car Park	PLOT 2A TOTAL
sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*		*sq.ft.*	*sq.ft.*	*sq.ft.*
										12	0	0	0
										11	0	0	0
										10	0	0	0
										9	0	0	0
										8	0	0	0
				5,971	5,971					7	5,971	0	5,971
				14,135	14,135			6,975	6,975	6	21,110	0	21,110
4,957	4,957	4,343	4,343	14,135	14,135	7,476	7,476	6,975	6,975	5	37,886	0	37,886
4,957	4,957	4,343	4,343	14,135	14,135	11,543	11,543	11,325	11,325	4	46,303	0	46,303
8,260	8,260	6,782	6,782	14,135	14,135	11,543	11,543	11,325	11,325	3	52,045	0	52,045
8,260	8,260	6,782	6,782	14,135	14,135	11,543	11,543	11,325	11,325	2	52,045	0	52,045
8,260	8,260	6,782	6,782	14,135	14,135	11,543	11,543	11,325	11,325	1	52,045	0	52,045
8,260	8,260	6,782	6,782	14,135	14,135	11,543	11,543	11,325	11,325	G	52,045	0	52,045
										B1		62,857	62,857
										B2			

sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*		*sq.ft.*	*sq.ft.*	*sq.ft.*
42,954	**42,954**	**35,814**	**35,814**	**104,916**	**104,916**	**65,191**	**65,191**	**70,575**	**70,575**	**Total**	**319,450**	**62,857**	**382,307**

sq.m	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*		*sq.m*	*sq.m*	*sq.m*
3,991	**3,991**	**3,327**	**3,327**	**9,747**	**9,747**	**6,056**	**6,056**	**6,557**	**6,557**	**Total**	**29,678**	**5,840**	**35,517**

Stag Brewery

Schedule of Gross External Areas - Revised Enlarged Scheme

Rev J

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Building 18	
Residential (Potential Affordable)	TOTAL
sq.ft.	*sq.ft.*
10,362	10,362
27,921	27,921
34,221	34,221
36,741	36,741
36,741	36,741
36,741	36,741
182,727	**182,727**
sq.m	*sq.m*
16,976	**16,976**

Building 19	
Residential (Potential Affordable)	TOTAL
sq.ft.	*sq.ft.*
10,087	10,087
15,804	15,804
15,804	15,804
15,804	15,804
57,499	**57,499**
sq.m	*sq.m*
5,342	**5,342**

Combined Plot 2B		
Building Level	Residential (Potential Affordable)	PLOT 2B TOTAL
	sq.ft.	*sq.ft.*
12	0	0
11	0	0
10	0	0
9	0	0
8	0	0
7	0	0
6	0	0
5	10,362	10,362
4	27,921	27,921
3	44,308	44,308
2	52,545	52,545
1	52,545	52,545
G	52,545	52,545
B1		
B2		
Total	**240,226**	**240,226**
Total	*sq.m*	*sq.m*
	22,318	**22,318**

Stag Brewery

Schedule of Gross External Areas - Revised Enlarged Scheme

Rev J

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Building 20		Building 21		Combined Plot 2C			School	
Residential (Private)	TOTAL	Residential (Private)	TOTAL	Building Level	Residential (Private)	PLOT 2C TOTAL	School	TOTAL
sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*		*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
				12				
				11				
				10				
				9				
				8				
				7				
				6				
				5				
				4				
				3			1,320	1,320
10,274	10,274	5,382	5,382	2	15,656	15,656	39,596	39,596
10,274	10,274	5,382	5,382	1	15,656	15,656	41,842	41,842
10,274	10,274	5,382	5,382	G	15,656	15,656	40,271	40,271
				B1				
				B2				
sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*		*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
30,822	**30,822**	**16,146**	**16,146**	**Total**	**46,968**	**46,968**	**123,029**	**123,029**
sq.m	*sq.m*	*sq.m*	*sq.m*		*sq.m*	*sq.m*	*sq.m*	*sq.m*
2,863	**2,863**	**1,500**	**1,500**	**Total**	**4,363**	**4,363**	**11,430**	**11,430**

Stag Brewery
Schedule of Gross External Areas - Revised Enlarged Scheme
Rev J

13.07.22

Combined Phases

Building Level	Residential (Private)	Residential (Potential Affordable)	Residential (Total)	Flexible Use	Office	Hotel	Cinema	School	Car Park	GRAND TOTAL
	sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
12	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0
8	7,983	0	7,983	0	0	0	0	0	0	7,983
7	64,279	0	64,279	0	0	0	0	0	0	64,279
6	90,572	0	90,572	0	0	0	0	0	0	90,572
5	123,528	14,612	138,140	0	0	0	0	0	0	138,140
4	140,609	37,724	178,333	0	0	0	0	0	0	178,333
3	153,866	54,111	207,977	0	5,168	0	0	1,320	0	214,465
2	169,522	62,348	231,870	0	14,752	3,554	0	39,596	0	289,772
1	167,158	62,348	229,506	967	22,548	5,737	0	41,842	0	300,600
G	128,636	58,031	186,667	52,755	7,311	6,435	4,314	40,271	6,629	304,381
B1	0	0	0	4,543	3,338	5,129	9,834	0	273,398	296,242
B2							6,702			6,702

	sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
Total	**1,046,153**	**289,174**	**1,335,327**	**58,265**	**53,117**	**20,855**	**20,850**	**123,029**	**280,027**	**1,891,469**

	sq.m	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*
Total	**97,190**	**26,865**	**124,055**	**5,413**	**4,935**	**1,937**	**1,937**	**11,430**	**26,015**	**175,722**

SQUIRE & PARTNERS

Stag Brewery
Schedule of Gross Internal Areas - Hybrid Scheme
Rev J

13.07.22

Building Level	Building 1				Building 2				Building 3			Building 4		
	Cinema	Office	Flexible Use (Café)	TOTAL	Residential (Private)	Flexible Use	Car Park	TOTAL	Residential (Private)	Car Park	TOTAL	Residential (Private)	Flexible Use	TOTAL
	sq.ft	*sq.ft*	*sq.ft*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
12														
11														
10														
9														
8					807			807						
7					15,248			15,248				627		627
6					18,105			18,105				1,148		1,148
5					18,644			18,644	7,744		7,744	6,121		6,121
4					18,644			18,644	9,306		9,306	4,556		4,556
3		5,126		5,126	18,644			18,644	9,462		9,462	6,121		6,121
2		9,241		9,241	18,644			18,644	9,462		9,462	6,121		6,121
1		9,241		9,241	18,105			18,105	9,462		9,462	5,203	810	6,013
G	3,861	4,067	1,313	9,241	12,646	5,634	1,034	19,314	8,619	1,834	10,453	1,887	4,226	6,113
B1	9,241			9,241										
B2	4,186			4,186										
Total sqf	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
	17,288	**27,675**	**1,313**	**46,276**	**139,487**	**5,634**	**1,034**	**146,155**	**54,055**	**1,834**	**55,889**	**31,784**	**5,036**	**36,820**
Total sqm	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*
	1,606	**2,571**	**122**	**4,299**	**12,959**	**523**	**96**	**13,578**	**5,022**	**170**	**5,192**	**2,953**	**468**	**3,421**

Areas are approximate only and subject to change through rights of light considerations, planning, design and development

Stag Brewery
Schedule of Gross Internal Areas - Hybrid Scheme

13.07.22

Combined Plot 1A						
Building Level	Residential (Private)	Flexible Use	Cinema	Office	Car Park	PLOT 1A TOTAL
	sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
12	0	0				0
11	0	0				0
10	0	0				0
9	0	0				0
8	807	0				807
7	15,875	0				15,875
6	19,253	0				19,253
5	32,509	0				32,509
4	32,506	0				32,506
3	34,227	0		5,126		39,353
2	34,227	0		9,241		43,468
1	32,770	810		9,241		42,821
G	23,152	11,173	3,861	4,067	2,868	45,121
B1			9,241		79,433	88,674
B2			4,186			4,186

	sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
Total	**225,326**	**11,983**	**17,288**	**27,675**	**82,301**	**364,573**

	sq.m	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*
Total	**20,933**	**1,113**	**1,606**	**2,571**	**7,646**	**33,870**

Stag Brewery
Schedule of Gross Internal Areas - Hybrid Scheme

13.07.22

Building 5				Building 6			Building 7			Building 8		
Flexible Use	Hotel	Office	TOTAL	Residential (Private)	Flexible Use	TOTAL	Residential (Private)	Flexible Use	TOTAL	Residential (Private)	Flexible Use	TOTAL
sq.ft.		*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
							310		310	5,759		5,759
							10,776		10,776	13,321		13,321
							12,729		12,729	14,769		14,769
							13,136		13,136	14,769		14,769
				3,132		3,132	13,136		13,136	14,769		14,769
				7,582		7,582	13,136		13,136	14,769		14,769
	3,108	3,781	6,889	7,582		7,582	13,136		13,136	14,769		14,769
	5,211	11,134	16,345	7,582		7,582	12,729		12,729	14,636		14,636
8,663	6,046	2,525	17,234	3,175	4,407	7,582	8,155	5,439	13,594	9,934	5,211	15,145
4,114	4,633	2,974	11,721									
sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
12,777	**18,998**	**20,414**	**52,189**	**29,053**	**4,407**	**33,460**	**97,243**	**5,439**	**102,682**	**117,495**	**5,211**	**122,706**
sq.m	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*
1,187	**1,765**	**1,897**	**4,848**	**2,699**	**409**	**3,109**	**9,034**	**505**	**9,539**	**10,916**	**484**	**11,400**

Stag Brewery

Schedule of Gross Internal Areas - Hybrid Scheme

Rev J

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Combined Plot 1B						
Building Level	Residential (Private)	Flexible Use	Hotel	Office	Car Park	PLOT 1B TOTAL
	sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
12	0					0
11	0					0
10	0					0
9	0					0
8	6,069					6,069
7	24,097					24,097
6	27,498					27,498
5	27,905					27,905
4	31,037					31,037
3	35,487					35,487
2	35,487		3,108	3,781		42,376
1	34,947		5,211	11,134		51,292
G	21,264	23,720	6,046	2,525		53,555
B1	0	4,114	4,633	2,974	79,433	91,154
B2						
	sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
Total	**243,791**	**27,834**	**18,998**	**20,414**	**79,433**	**390,470**
	sq.m	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*
Total	**22,649**	**2,586**	**1,765**	**1,897**	**7,380**	**36,276**

Stag Brewery

Schedule of Gross Internal Areas - Hybrid Scheme

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Building 9		
Residential (Private)	Flexible Use	TOTAL
sq.ft.	*sq.ft.*	*sq.ft.*
2,449		2,449
4,850		4,850
4,850		4,850
4,850		4,850
1,165	3,685	4,850
sq.ft.	*sq.ft.*	*sq.ft.*
18,164	**3,685**	**21,849**
sq.m	*sq.m*	*sq.m*
1,687	**342**	**2,030**

Building 10			
Residential (Potential Affordable)	Flexible Use	Car Park	TOTAL
sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*
3,496			3,496
8,749			8,749
8,749			8,749
8,749			8,749
8,749			8,749
4,867	1,045	2,831	8,743
sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*
43,359	**1,045**	**2,831**	**47,235**
sq.m	*sq.m*	*sq.m*	*sq.m*
4,028	**97**	**263**	**4,388**

Building 11		
Residential (Private)	Flexible Use	TOTAL
sq.ft.	*sq.ft.*	*sq.ft.*
6,822		6,822
8,074		8,074
8,349		8,349
8,349		8,349
8,349		8,349
8,074		8,074
5,846	3,017	8,863
sq.ft.	*sq.ft.*	*sq.ft.*
62,212	**3,017**	**65,229**
sq.m	*sq.m*	*sq.m*
5,780	**280**	**6,060**

Building 12		
Residential (Private)	Flexible Use	TOTAL
sq.ft.	*sq.ft.*	*sq.ft.*
4,914		4,914
6,849		6,849
7,632		7,632
7,632		7,632
7,632		7,632
7,632		7,632
4,532	3,931	8,463
sq.ft.	*sq.ft.*	*sq.ft.*
54,455	**3,931**	**58,386**
sq.m	*sq.m*	*sq.m*
5,059	**365**	**5,424**

Combined Plot 1C						
Building Level	Residential (Private)	Residential (Potential Affordable)	Residential (Total)	Flexible Use	Car Park	PLOT 1C TOTAL
	sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
12	0	0	0			0
11	0	0	0			0
10	0	0	0			0
9	0	0	0			0
8	0	0	0			0
7	11,736	0	11,736			11,736
6	14,923	0	14,923			14,923
5	15,981	3,496	19,477			19,477
4	18,430	8,749	27,179			27,179
3	20,831	8,749	29,580			29,580
2	20,831	8,749	29,580			29,580
1	20,556	8,749	29,305			29,305
G	11,543	4,867	16,410	11,678	2,831	30,919
B1					45,104	45,104
B2						
Total	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
	134,831	**43,359**	**178,190**	**11,678**	**47,935**	**237,803**
Total	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*
	12,526	**4,028**	**16,554**	**1,085**	**4,453**	**22,092**

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Stag Brewery
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Building 13	
Residential (Private)	TOTAL
sq.ft.	*sq.ft.*
4,371	4,371
4,371	4,371
7,462	7,462
7,462	7,462
7,462	7,462
7,462	7,462
sq.ft.	*sq.ft.*
38,590	**38,590**
sq.m	*sq.m*
3,585	**3,585**

Building 14	
Residential (Private)	TOTAL
sq.ft.	*sq.ft.*
3,783	3,783
3,783	3,783
6,203	6,203
6,203	6,203
6,203	6,203
6,203	6,203
sq.ft.	*sq.ft.*
32,378	**32,378**
sq.m	*sq.m*
3,008	**3,008**

Building 15	
Residential (Private)	TOTAL
sq.ft.	*sq.ft.*
5,116	5,116
12,958	12,958
12,958	12,958
12,958	12,958
12,958	12,958
12,958	12,958
12,958	12,958
sq.ft.	*sq.ft.*
95,822	**95,822**
sq.m	*sq.m*
8,902	**8,902**

Building 16	
Residential (Private)	TOTAL
sq.ft.	*sq.ft.*
6,725	6,725
10,531	10,531
10,531	10,531
10,531	10,531
10,531	10,531
10,531	10,531
10,531	10,531
sq.ft.	*sq.ft.*
59,380	**59,380**
sq.m	*sq.m*
5,517	**5,517**

Building 17	
Residential (Private)	TOTAL
sq.ft.	*sq.ft.*
6,314	6,314
6,314	6,314
10,328	10,328
10,328	10,328
10,328	10,328
10,328	10,328
10,328	10,328
sq.ft.	*sq.ft.*
64,268	**64,268**
sq.m	*sq.m*
5,971	**5,971**

Combined Plot 2A			
Building Level	Residential (Private)	Car Park	PLOT 2A TOTAL
	sq.ft.	*sq.ft.*	*sq.ft.*
12	0	0	0
11	0	0	0
10	0	0	0
9	0	0	0
8	0	0	0
7	5,116	0	5,116
6	19,272	0	19,272
5	34,151	0	34,151
4	41,971	0	41,971
3	47,482	0	47,482
2	47,482	0	47,482
1	47,482	0	47,482
G	47,482	0	47,482
B1		59,543	59,543
B2			
Total	*sq.ft.*	*sq.ft.*	*sq.ft.*
	290,438	**59,543**	**349,981**
Total	*sq.m*	*sq.m*	*sq.m*
	26,982	**5,532**	**32,514**

Stag Brewery

Schedule of Gross Internal Areas - Hybrid Scheme

Rev J

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Building 18	
Residential (Potential Affordable)	TOTAL
sq.ft.	*sq.ft.*
9,310	9,310
25,403	25,403
31,467	31,467
34,080	34,080
34,080	34,080
34,080	34,080
sq.ft.	*sq.ft.*
168,420	**168,420**
sq.m	*sq.m*
15,647	**15,647**

Building 19	
Residential (Potential Affordable)	TOTAL
sq.ft.	*sq.ft.*
8,944	8,944
14,515	14,515
14,515	14,515
14,515	14,515
sq.ft.	*sq.ft.*
52,489	**52,489**
sq.m	*sq.m*
4,876	**4,876**

Combined Plot 2B		
Building Level	Residential (Potential Affordable)	PLOT 2B TOTAL
	sq.ft.	*sq.ft.*
12	0	0
11	0	0
10	0	0
9	0	0
8	0	0
7	0	0
6	0	0
5	9,310	9,310
4	25,403	25,403
3	40,411	40,411
2	48,595	48,595
1	48,595	48,595
G	48,595	48,595
B1		
B2		
Total	*sq.ft.*	*sq.ft.*
	220,909	**220,909**
Total	*sq.m*	*sq.m*
	20,523	**20,523**

Stag Brewery

Schedule of Gross Internal Areas - Hybrid Scheme

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Building 20		Building 21		Combined Plot 2C			School	
Residential (Private)	TOTAL	Residential (Private)	TOTAL	Building Level	Residential (Private)	PLOT 2C TOTAL	School	TOTAL
sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*		*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
				12				
				11				
				10				
				9				
				8				
				7				
				6				
				5				
				4				
				3			813	813
8,817	8,817	4,561	4,561	2	13,378	13,378	26,312	26,312
8,817	8,817	4,561	4,561	1	13,378	13,378	34,967	34,967
8,817	8,817	4,561	4,561	G	13,378	13,378	38,219	38,219
				B1				
				B2				

sq.ft.	*sq.ft.*
26,451	**26,451**

sq.ft.	*sq.ft.*
13,683	**13,683**

	sq.ft.	*sq.ft.*
Total	**40,134**	**40,134**

sq.ft.	*sq.ft.*
100,311	**100,311**

sq.m	*sq.m*
2,457	**2,457**

sq.m	*sq.m*
1,271	**1,271**

	sq.m	*sq.m*
Total	**3,729**	**3,729**

sq.m	*sq.m*
9,319	**9,319**

Stag Brewery
Schedule of Gross Internal Areas - Hybrid Scheme
Rev J

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Combined Phases

Building Level	Residential (Private)	Residential (Potential Affordable)	Residential (Total)	Flexible Use	Office	Hotel	Cinema	School	Car Park	GRAND TOTAL
	sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
12	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0
8	6,876	0	6,876	0	0	0	0	0	0	6,876
7	56,824	0	56,824	0	0	0	0	0	0	56,824
6	80,946	0	80,946	0	0	0	0	0	0	80,946
5	110,546	12,806	123,352	0	0	0	0	0	0	123,352
4	123,944	34,152	158,096	0	0	0	0	0	0	158,096
3	138,027	49,160	187,187	0	5,126	0	0	813	0	193,126
2	151,405	57,344	208,749	0	13,022	3,108	0	26,312	0	251,191
1	149,133	57,344	206,477	810	20,375	5,211	0	34,967	0	267,840
G	116,819	53,462	170,281	46,571	6,592	6,046	3,861	38,219	5,699	277,269
B1	0	0	0	4,114	2,974	4,633	9,241	0	263,513	284,475
B2				0	0	0	4,186		0	4,186

	sq.ft.	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*	*sq.ft.*
Total	**934,520**	**264,268**	**1,198,788**	**51,495**	**48,089**	**18,998**	**17,288**	**100,311**	**269,212**	**1,704,181**

	sq.m	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*	*sq.m*
Total	**86,819**	**24,551**	**111,370**	**4,784**	**4,468**	**1,765**	**1,606**	**9,319**	**25,010**	**158,322**

SQUIRE & PARTNERS

Stag Brewery

Schedule of (Residential) NSA - Hybrid Scheme

Rev J

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Building 2 (Private)

Level	Flat/Unit No. 1 Beds	1 NSA sq.m.	2 Beds	2 NSA sq.m.	3 Beds	3 NSA sq.m.	4 Beds	4 NSA sq.m.	5 Beds	5 NSA sq.m.	6 Beds	6 NSA sq.m.	7 Beds	7 NSA sq.m.	8 Beds	8 NSA sq.m.	9 Beds	9 NSA sq.m.	10 Beds	10 NSA sq.m.	11 Beds	11 NSA sq.m.	12 Beds	12 NSA sq.m.	13 Beds	13 NSA sq.m.	14 Beds	14 NSA sq.m.	15 Beds	15 NSA sq.m.	16 Beds	16 NSA sq.m.	TOTALS NSA sq.m.	TOTALS NSA sq.ft.
12																																		
11																																		
10																																		
9																																		
8												82																					82	883
7	2B4P	102	2B3P	73	1B2P	63	1B2P	54	3B6P	128	3B6P	128	1B2P	58	1B2P	54	1B2P	50	3B6P	119	2B4P	87	1B2P	56	1B2P	67	2B4P	81					1,120	12,056
6	3B6P	102	3B6P	103	1B2P	62	2B3P	82	2B3P	65	3B6P	120	2B4P	94	2B4P	77	2B3P	67	2B3P	67	3B6P	110	2B4P	91	3B6P	117	2B3P	66	2B4P	86	1B2P	63	1,372	14,768
5	3B6P	110	3B6P	109	1B2P	66	2B3P	85	2B3P	68	3B6P	120	2B4P	94	2B4P	79	2B3P	68	2B4P	70	3B6P	115	2B4P	99	3B6P	117	2B3P	69	2B4P	89	1B2P	66	1,424	15,328
4	3B6P	110	3B6P	109	1B2P	66	2B3P	85	2B3P	68	3B6P	120	2B4P	94	2B4P	79	2B3P	68	2B4P	70	3B6P	115	2B4P	99	3B6P	117	2B3P	69	2B4P	89	1B2P	66	1,424	15,328
3	3B6P	110	3B6P	109	1B2P	66	2B3P	85	2B3P	68	3B6P	120	2B4P	94	2B4P	79	2B3P	68	2B4P	70	3B6P	115	2B4P	99	3B6P	117	2B3P	69	2B4P	89	1B2P	66	1,424	15,328
2	3B6P	110	3B6P	109	1B2P	66	2B3P	85	2B3P	68	3B6P	120	2B4P	94	2B4P	79	2B3P	68	2B4P	70	3B6P	115	2B4P	99	3B6P	117	2B3P	69	2B4P	89	1B2P	66	1,424	15,328
1	3B6P	102	3B6P	103	1B2P	62	2B3P	82	2B3P	65	3B6P	120	2B4P	94	2B4P	77	2B3P	67	2B3P	67	3B6P	110	2B4P	91	3B6P	117	2B3P	66	2B4P	86	1B2P	63	1,372	14,768
G	1B2P	60	1B2P	51	2B4P	100	1B2P	54	2B4P	104	2B4P	85	2B4P	84	2B4P	99																	637	6,857
B1																																		
B2																																		
TOTAL																																	10,279	110,642

UNITS																	TOTAL	
Studio	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Studio
1B2P	1	1	7	2	0	0	1	1	1	0	0	1	1	0	0	6	22	1B2P
2B3P	0	1	0	6	6	0	0	0	6	2	0	0	0	6	0	0	27	2B3P
2B4P	1	0	1	0	1	1	7	7	0	4	1	6	0	1	6	0	36	2B4P
3B4P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3B4P
3B5P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3B5P
3B6P	6	6	0	0	1	7	0	0	0	1	6	0	6	0	0	0	33	3B6P
4B7P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4B7P
4B8P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4B8P
3 Bed (H)																		
4 Bed (H)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4 Bed (H)
																	118	

Wheelchair Accessible Unit

Areas are approximate only and subject to change through rights of light considerations, planning, design and development

Areas are subject to co-ordination with technical design team

Development Area 2 is applied for in outline and therefore the unit NSA areas are subject to change through detailed design and the submission of subsequent reserved matters applications

Stag Brewery

Schedule of (Residential) NSA - Hybrid Scheme

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Building 3 (Private)

Flat/Unit No. 1 Beds	1 NSA sq.m.	2 Beds	2 NSA sq.m.	3 Beds	3 NSA sq.m.	4 Beds	4 NSA sq.m.	5 Beds	5 NSA sq.m.	6 Beds	6 NSA sq.m.	7 Beds	7 NSA sq.m.	8 Beds	8 NSA sq.m.	9 Beds	9 NSA sq.m.	TOTALS NSA sq.m.	TOTALS NSA sq.ft.
3B5P	103	2B3P	82	2B4P	86	2B3P	68	2B3P	78	2B4P	90	1B2P	67					574	6,178
3B6P	97	3B6P	98	2B3P	69	1B2P	75	3B5P	109	2B3P	65	1B2P	54	2B3P	71	2B3P	70	708	7,621
3B6P	97	3B6P	99	2B3P	74	2B3P	79	3B5P	109	2B3P	65	1B2P	54	2B3P	75	2B3P	74	726	7,815
3B6P	97	3B6P	99	2B3P	74	2B3P	79	3B5P	109	2B3P	65	1B2P	54	2B3P	75	2B3P	74	726	7,815
3B6P	97	3B6P	99	2B3P	73	2B3P	79	3B5P	109	2B3P	65	1B2P	54	2B3P	75	2B3P	74	725	7,804
2B3P	101	2B4P	106	1B2P	64	1B2P	50	2B4P	90									411	4,424
																		3,870	41,656

TOTAL	
0	Studio
8	1B2P
23	2B3P
4	2B4P
0	3B4P
5	3B5P
8	3B6P
0	4B7P
0	4B8P
0	4 Bed (H)
48	

Building 4 (Private)

Flat/Unit No. 1 Beds	1 NSA sq.m.	2 Beds	2 NSA sq.m.	3 Beds	3 NSA sq.m.	4 Beds	4 NSA sq.m.	5 Beds	5 NSA sq.m.	TOTALS NSA sq.m.	TOTALS NSA sq.ft.
2B4P	31									31	334
	73									73	786
2B3P	79	2B4P	96	2B4P	94	2B4P	92	2B4P	89	450	4,844
3B6P	48	3B6P	70	3B6P	69	3B6P	62	3B6P	60	309	3,326
	79		96		94		92		89	450	4,844
2B3P	80	2B4P	96	2B4P	94	2B4P	92	2B4P	89	451	4,855
		2B4P	96	2B4P	94	2B4P	92	2B4P	89	371	3,993
										2,135	22,981

TOTAL	
0	Studio
0	1B2P
2	2B3P
13	2B4P
0	3B4P
0	3B5P
5	3B6P
0	4B7P
0	4B8P
0	4 Bed (H)
20	

Combined Plot 1A

Building Level	NSA sq.m.	NSA sq.ft.
12	0	0
11	0	0
10	0	0
9	0	0
8	82	883
7	1,151	12,389
6	1,445	15,554
5	2,448	26,350
4	2,441	26,275
3	2,600	27,986
2	2,601	27,997
1	2,468	26,565
0	1,048	11,281
B1	0	0
B2	0	0
	16,284	175,279

TOTAL PLOT 1A	
Studio	0
1B2P	30
2B3P	52
2B4P	53
3B4P	0
3B5P	5
3B6P	46
4B7P	0
4B8P	0
4 Bed (H)	0
	186

Stag Brewery
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Building 6 (Private)

Flat/Unit No.														TOTALS	TOTALS
1		*2*		*3*		*4*		*5*		*6*		*7*			
Beds	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	NSA sq.m.	NSA sq.ft.
1B2P	*51*	**2B4P**	*74*	**2B4P**	*95*									*220*	2,368
2B4P	*71*	**3B6P**	*102*	**3B6P**	*101*	**2B4P**	*72*	**2B3P**	*85*	**1B2P**	*52*	**2B4P**	*79*	*562*	6,049
2B4P	*71*	**3B6P**	*102*	**3B6P**	*101*	**2B4P**	*72*	**2B3P**	*85*	**1B2P**	*52*	**2B4P**	*79*	*562*	6,049
2B4P	*71*	**3B6P**	*102*	**3B6P**	*101*	**2B4P**	*72*	**2B3P**	*85*	**1B2P**	*52*	**2B4P**	*79*	*562*	6,049
														1,906	20,516

							TOTAL	
0	0	0	0	0	0	0	0	**Studio**
1	0	0	0	0	3	0	4	**1B2P**
0	0	0	0	3	0	0	3	**2B3P**
3	1	1	3	0	0	3	11	**2B4P**
0	0	0	0	0	0	0	0	**3B4P**
0	0	0	0	0	0	0	0	**3B5P**
0	3	3	0	0	0	0	6	**3B6P**
0	0	0	0	0	0	0	0	**4B7P**
0	0	0	0	0	0	0	0	**4B8P**
0	0	0	0	0	0	0	0	**4 Bed (H)**
							24	

Stag Brewery

Schedule of (Residential) NSA - Hybrid Scheme

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Building 7 (Private)

Flat/Unit No.																								TOTALS	TOTALS
1		*2*		*3*		*4*		*5*		*6*		*7*		*8*		*9*		*10*		*11*		*12*			
Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	NSA sq.m.	NSA sq.ft.
											27													27	291
3B5P	*87*	2B3P	*73*	1B2P	*51*	1B2P	*66*	1B2P	*59*	3B5P	*102*	1B2P	*57*	**1B2P**	66	**1B2P**	*50*	**2B3P**	66	**3B5P**	86			763	8,213
3B6P	*106*	3B6P	*107*	2B3P	*71*	2B4P	*83*	2B4P	*84*	1B2P	*54*	2B3P	*66*	3B5P	*98*	1B2P	*51*	2B4P	*80*	2B4P	*81*	2B3P	*64*	945	10,172
3B6P	*114*	3B6P	*115*	2B4P	*75*	2B4P	*85*	2B4P	*89*	1B2P	*54*	2B3P	*68*	3B5P	*98*	1B2P	*51*	2B4P	*84*	2B4P	*85*	2B3P	*69*	987	10,624
3B6P	*114*	3B6P	*115*	2B4P	*75*	2B4P	*85*	2B4P	*89*	1B2P	*54*	2B3P	*68*	3B5P	*98*	1B2P	*51*	2B4P	*84*	2B4P	*85*	2B3P	*69*	987	10,624
3B6P	*114*	3B6P	*115*	2B4P	*75*	2B4P	*85*	2B4P	*89*	1B2P	*54*	2B3P	*68*	3B5P	*98*	1B2P	*51*	2B4P	*84*	2B4P	*85*	2B3P	*69*	987	10,624
3B6P	*114*	3B6P	*115*	2B4P	*75*	2B4P	*85*	2B4P	*89*	1B2P	*54*	2B3P	*68*	3B5P	*98*	1B2P	*51*	2B4P	*84*	2B4P	*85*	2B3P	*69*	987	10,624
3B6P	*106*	3B6P	*107*	2B3P	*71*	2B4P	*83*	2B4P	*84*	1B2P	*54*	2B3P	*66*	3B5P	*98*	1B2P	*51*	2B4P	*80*	2B4P	*81*	2B3P	*64*	945	10,172
2B3P	*89*	2B4P	*82*	2B4P	*85*	1B2P	*64*																	320	3,444
																								6,948	74,788

												TOTAL	
0	0	0	0	0	0	0	0	0	0	0	0	0	**Studio**
0	0	1	2	1	6	1	1	7	0	0	0	19	**1B2P**
1	1	2	0	0	0	6	0	0	1	0	6	17	**2B3P**
0	1	5	6	6	0	0	0	0	6	6	0	30	**2B4P**
0	0	0	0	0	0	0	0	0	0	0	0	0	**3B4P**
1	0	0	0	0	1	0	6	0	0	1	0	9	**3B5P**
6	6	0	0	0	0	0	0	0	0	0	0	12	**3B6P**
0	0	0	0	0	0	0	0	0	0	0	0	0	**4B7P**
0	0	0	0	0	0	0	0	0	0	0	0	0	**4B8P**
0	0	0	0	0	0	0	0	0	0	0	0	0	**4 Bed (H)**
												87	

Stag Brewery
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Building 8 (Private)

Flat/Unit No.

1 Beds	1 NSA sq.m.	2 Beds	2 NSA sq.m.	3 Beds	3 NSA sq.m.	4 Beds	4 NSA sq.m.	5 Beds	5 NSA sq.m.	6 Beds	6 NSA sq.m.	7 Beds	7 NSA sq.m.	8 Beds	8 NSA sq.m.	9 Beds	9 NSA sq.m.	10 Beds	10 NSA sq.m.	11 Beds	11 NSA sq.m.	12 Beds	12 NSA sq.m.	13 Beds	13 NSA sq.m.	TOTALS NSA sq.m.	TOTALS NSA sq.ft.
1B2P	*88*	1B2P	*88*	3B6P	*122*	3B6P	*142*																			440	4,736
3B6P	*94*	3B5P	*94*	1B2P	*50*	3B5P	*118*	2B4P	*109*	1B2P	*65*	1B2P	*64*	1B2P	*50*	2B3P	*77*	2B4P	*84*	**2B4P**	**94**	3B5P	*98*			997	10,732
3B6P	*99*	3B6P	*102*	1B2P	*50*	2B4P	*118*	1B2P	*57*	2B4P	*80*	2B4P	*71*	2B4P	*71*	2B3P	*65*	1B2P	*61*	4B7P	*135*	2B4P	*96*	3B5P	*106*	1,111	11,959
3B6P	*99*	3B6P	*102*	1B2P	*50*	2B4P	*116*	1B2P	*58*	2B4P	*81*	2B4P	*71*	2B4P	*71*	2B3P	*68*	2B3P	*65*	3B5P	*100*	3B6P	*126*	3B5P	*106*	1,113	11,980
3B6P	*99*	3B6P	*102*	1B2P	*50*	2B4P	*116*	1B2P	*58*	2B4P	*81*	2B4P	*71*	2B4P	*71*	2B3P	*68*	2B3P	*65*	3B5P	*100*	3B6P	*126*	3B5P	*106*	1,113	11,980
3B6P	*99*	3B6P	*102*	1B2P	*50*	2B4P	*116*	1B2P	*58*	2B4P	*81*	2B4P	*71*	2B4P	*71*	2B3P	*68*	2B3P	*65*	3B5P	*100*	3B6P	*126*	3B5P	*106*	1,113	11,980
3B6P	*99*	3B6P	*102*	1B2P	*50*	2B4P	*116*	1B2P	*58*	2B4P	*81*	2B4P	*71*	2B4P	*71*	2B3P	*68*	2B3P	*65*	3B5P	*100*	3B6P	*126*	3B5P	*106*	1,113	11,980
3B6P	*94*	3B6P	*94*	1B2P	*50*	3B5P	*120*	1B2P	*57*	2B4P	*80*	2B4P	*71*	2B4P	*71*	2B3P	*65*	1B2P	*62*	4B7P	*139*	2B4P	*96*	3B5P	*98*	1,097	11,808
1B2P	51	2B4P	*89*	2B3P	*83*	1B2P	*51*	2B4P	*106*	2B4P	*71*															451	4,855
																										8,548	92,010

1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	**Studio**
2	1	7	1	6	1	1	1	0	2	0	0	0	22	**1B2P**
0	0	1	0	0	0	0	0	7	4	0	0	0	12	**2B3P**
0	1	0	5	2	7	6	6	0	1	1	2	0	31	**2B4P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3B4P**
0	1	0	2	0	0	0	0	0	0	4	1	6	14	**3B5P**
7	6	1	1	0	0	0	0	0	0	0	4	0	19	**3B6P**
0	0	0	0	0	0	0	0	0	0	2	0	0	2	**4B7P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4B8P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4 Bed (H)**
													100	

Plot 1B Private

Building Level	NSA sq.m.	NSA sq.ft.
	0	
	0	
	0	
	0	
9	*0*	0
8	*467*	5,027
7	*1,760*	18,944
6	*2,056*	22,131
5	*2,100*	22,604
4	*2,320*	24,972
3	*2,662*	28,654
2	*2,662*	28,654
1	*2,604*	28,029
0	*771*	8,299
B1	*0*	0
B2	*0*	0
	17,402	187,313

PLOT 1B PRIVATE	
Studio	0
1B2P	45
2B3P	32
2B4P	72
3B4P	0
3B5P	23
3B6P	37
4B7P	2
4B8P	0
4 Bed (H)	0
	211

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Building 9 (Private)

Flat/Unit No.								TOTALS	TOTALS
1		*2*		*3*		*4*			
Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	NSA sq.m.	NSA sq.ft.
4B7P	*170*							170	1,830
2B3P	*88*	4B7P	*117*	3B6P	*94*	2B4P	*73*	372	4,004
2B3P	*88*	4B7P	*117*	3B6P	*94*	2B4P	*73*	372	4,004
2B3P	*88*	4B7P	*117*	3B6P	*94*	2B4P	*73*	372	4,004
								1,286	13,842

				TOTAL	
0	0	0	0	0	**Studio**
0	0	0	0	0	**1B2P**
3	0	0	0	3	**2B3P**
0	0	0	3	3	**2B4P**
0	0	0	0	0	**3B4P**
0	0	0	0	0	**3B5P**
0	0	3	0	3	**3B6P**
1	3	0	0	4	**4B7P**
0	0	0	0	0	**4B8P**
0	0	0	0	0	**4 Bed (H)**
				13	

Building 10 (Potential Affordable)

Flat/Unit No.																		TOTALS	TOTALS
1		*2*		*3*		*4*		*5*		*6*		*7*		*8*		*9*			
Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	NSA sq.m.	NSA sq.ft.
2B4P	*73*	1B2P	*53*	1B2P	*50*													176	1,894
1B2P	*50*	1B2P	*50*	1B2P	*52*	1B2P	50	2B4P	*86*	1B2P	*50*	2B4P	*71*	2B4P	*70*	2B4P	*87*	566	6,092
1B2P	*50*	1B2P	*50*	1B2P	*52*	1B2P	50	2B4P	*86*	1B2P	*50*	2B4P	*71*	2B4P	*70*	2B4P	*87*	566	6,092
1B2P	*50*	1B2P	*50*	1B2P	*52*	1B2P	50	2B4P	*86*	1B2P	*50*	2B4P	*71*	2B4P	*70*	2B4P	*87*	566	6,092
1B2P	*50*	1B2P	*50*	1B2P	*52*	1B2P	50	2B4P	*86*	1B2P	*50*	2B4P	*71*	2B4P	*70*	2B4P	*87*	566	6,092
																		2,440	26,264

									TOTAL	
0	0	0	0	0	0	0	0	0	0	**Studio**
4	5	5	4	0	4	0	0	0	22	**1B2P**
0	0	0	0	0	0	0	0	0	0	**2B3P**
1	0	0	0	4	0	4	4	4	17	**2B4P**
0	0	0	0	0	0	0	0	0	0	**3B4P**
0	0	0	0	0	0	0	0	0	0	**3B5P**
0	0	0	0	0	0	0	0	0	0	**3B6P**
0	0	0	0	0	0	0	0	0	0	**4B7P**
0	0	0	0	0	0	0	0	0	0	**4B8P**
0	0	0	0	0	0	0	0	0	0	**4 Bed (H)**
									39	

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Building 11 (Private)

Flat/Unit No.														TOTALS	TOTALS
1		2		3		4		5		6		7			
Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	NSA sq.m.	NSA sq.ft.
3B6P	*108*	2B4P	*89*	1B2P	*70*	4B7P	*148*	2B4P	*101*					516	5,554
3B6P	*110*	3B6P	*109*	2B4P	*80*	3B6P	*103*	2B4P	*87*	2B4P	*75*	1B2P	*56*	620	6,674
3B6P	*117*	3B6P	*116*	2B4P	*83*	3B6P	*109*	2B4P	*89*	2B4P	*83*	1B2P	*60*	657	7,072
3B6P	*117*	3B6P	*116*	2B4P	*83*	3B6P	*109*	2B4P	*89*	2B4P	*83*	1B2P	*60*	657	7,072
3B6P	*117*	3B6P	*116*	2B4P	*83*	3B6P	*109*	2B4P	*89*	2B4P	*83*	1B2P	*60*	657	7,072
3B6P	*117*	3B6P	*116*	2B4P	*83*	3B6P	*109*	2B4P	*89*	2B4P	*83*	1B2P	*60*	657	7,072
3B6P	*110*	3B6P	*109*	2B4P	*80*	3B6P	*103*	2B4P	*87*	2B4P	*75*	1B2P	*56*	620	6,674
1B2P	*59*	1B2P	*63*	2B4P	*91*	1B2P	*56*	1B2P	*61*					330	3,552
														4,714	50,741

							TOTAL	
0	0	0	0	0	0	0	0	**Studio**
1	1	1	1	1	0	6	11	**1B2P**
0	0	0	0	0	0	0	0	**2B3P**
0	1	7	0	7	6	0	21	**2B4P**
0	0	0	0	0	0	0	0	**3B4P**
0	0	0	0	0	0	0	0	**3B5P**
7	6	0	6	0	0	0	19	**3B6P**
0	0	0	1	0	0	0	1	**4B7P**
0	0	0	0	0	0	0	0	**4B8P**
0	0	0	0	0	0	0	0	**4 Bed (H)**
							52	

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Building 12 (Private)

Flat/Unit No. 1 Beds	1 NSA sq.m.	2 Beds	2 NSA sq.m.	3 Beds	3 NSA sq.m.	4 Beds	4 NSA sq.m.	5 Beds	5 NSA sq.m.	6 Beds	6 NSA sq.m.	7 Beds	7 NSA sq.m.	TOTALS NSA sq.m.	TOTALS NSA sq.ft.
2B4P	*81*	2B3P	*71*	2B4P	*80*	3B6P	*106*							338	3,638
1B2P	*54*	3B5P	*97*	1B2P	*61*	2B4P	*83*	1B2P	*55*	2B4P	*73*	2B4P	*78*	501	5,393
2B3P	*71*	3B6P	*111*	2B3P	*72*	2B4P	*83*	2B4P	*74*	2B4P	*83*	2B4P	*81*	575	6,189
2B3P	*71*	3B6P	*111*	2B3P	*72*	2B4P	*83*	2B4P	*74*	2B4P	*83*	2B4P	*81*	575	6,189
2B3P	*71*	3B6P	*111*	2B3P	*72*	2B4P	*83*	2B4P	*74*	2B4P	*83*	2B4P	*81*	575	6,189
2B3P	*71*	3B6P	*111*	2B3P	*72*	2B4P	*83*	2B4P	*74*	2B4P	*83*	2B4P	*81*	575	6,189
2B3P	*71*	3B6P	*111*	2B3P	*72*	2B4P	*83*	2B4P	*74*	2B4P	*83*	2B4P	*81*	575	6,189
2B4P	*111*	1B2P	*69*											180	1,938
														3,894	41,915

Plot 1C Private

Building Level	NSA sq.m.	NSA sq.ft.
12	*0*	0
11	*0*	0
10	*0*	0
9	*0*	0
8	*0*	0
7	*854*	9,192
6	*1,121*	12,066
5	*1,232*	13,261
4	*1,402*	15,091
3	*1,604*	17,265
2	*1,604*	17,265
1	*1,567*	16,867
0	*510*	5,490
B1	*0*	0
B2	*0*	0
	9,894	106,498

Plot 1C Potential Affordable

Building Level	NSA sq.m.	NSA sq.ft.
12	*0*	0
11	*0*	0
10	*0*	0
9	*0*	0
8	*0*	0
7	*0*	0
6	*0*	0
5	*176*	1,894
4	*566*	6,092
3	*566*	6,092
2	*566*	6,092
1	*566*	6,092
0	*0*	0
B1	*0*	0
B2	*0*	0
	2,440	26,264

Combined Plot 1C

Building Level	NSA sq.m.	NSA sq.ft.
12	*0*	0
11	*0*	0
10	*0*	0
9	*0*	0
8	*0*	0
7	*854*	9,192
6	*1,121*	12,066
5	*1,408*	15,156
4	*1,968*	21,183
3	*2,170*	23,358
2	*2,170*	23,358
1	*2,133*	22,959
0	*510*	5,490
B1	*0*	0
B2	*0*	0
	12,334	132,762

Combined Phase 1

Building Level	NSA sq.m.	NSA sq.ft.
12	*0*	0
11	*0*	0
10	*0*	0
9	*0*	0
8	*549*	5,909
7	*3,765*	40,526
6	*4,622*	49,751
5	*5,956*	64,110
4	*6,729*	72,430
3	*7,432*	79,997
2	*7,433*	80,008
1	*7,205*	77,554
0	*2,329*	25,069
B1	*0*	0
B2	*0*	0
	46,020	495,355

							TOTAL	
0	0	0	0	0	0	0	0	**Studio**
1	1	1	0	1	0	0	4	**1B2P**
5	1	5	0	0	0	0	11	**2B3P**
2	0	1	6	5	6	6	26	**2B4P**
0	0	0	0	0	0	0	0	**3B4P**
0	1	0	0	0	0	0	1	**3B5P**
0	5	0	1	0	0	0	6	**3B6P**
0	0	0	0	0	0	0	0	**4B7P**
0	0	0	0	0	0	0	0	**4B8P**
0	0	0	0	0	0	0	0	**4 Bed (H)**
							48	

PLOT 1C PRIVATE	
Studio	0
1B2P	15
2B3P	14
2B4P	50
3B4P	0
3B5P	1
3B6P	28
4B7P	5
4B8P	0
4 Bed (H)	0
	113

PLOT 1C AFFORDABLE	
Studio	0
1B2P	22
2B3P	0
2B4P	17
3B4P	0
3B5P	0
3B6P	0
4B7P	0
4B8P	0
4 Bed (H)	0
	39

TOTAL PLOT 1C	
Studio	0
1B2P	37
2B3P	14
2B4P	67
3B4P	0
3B5P	1
3B6P	28
4B7P	5
4B8P	0
4 Bed (H)	0
	152

TOTAL PHASE 1	
Studio	0
1B2P	112
2B3P	98
2B4P	192
3B4P	0
3B5P	29
3B6P	111
4B7P	7
4B8P	0
4 Bed (H)	0
	549

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Building 13 (Private)

Flat/Unit No. 1		2		3		4		5		6		7		8		9		TOTALS	TOTALS
Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	NSA sq.m.	NSA sq.ft.
3B6P	*153*	1B2P	*50*	1B2P	*53*	2B4P	*81*											337	3,627
3B6P	*153*	1B2P	*50*	1B2P	*53*	2B4P	*81*											337	3,627
2B4P	*70*	2B4P	*83*	1B2P	*51*	1B2P	*50*	1B2P	*50*	2B4P	*85*	2B4P	*71*	S	*51*	2B4P	*70*	581	6,254
2B4P	*70*	2B4P	*83*	1B2P	*51*	1B2P	*50*	1B2P	*50*	2B4P	*85*	2B4P	*71*	S	*51*	2B4P	*70*	581	6,254
2B4P	*70*	2B4P	*83*	1B2P	*51*	1B2P	*50*	1B2P	*50*	2B4P	*85*	2B4P	*71*	S	*51*	2B4P	*70*	581	6,254
2B3P	*68*	2B4P	*76*	2B3P	*66*	1B2P	*66*	1B2P	*66*	1B2P	*62*	2B3P	*69*					473	5,091
																		2,890	31,108

1	2	3	4	5	6	7	8	9	TOTAL	
0	0	0	0	0	0	0	3	0	3	**Studio**
0	2	5	4	4	1	0	0	0	16	**1B2P**
1	0	1	0	0	0	1	0	0	3	**2B3P**
3	4	0	2	0	3	3	0	3	18	**2B4P**
0	0	0	0	0	0	0	0	0	0	**3B4P**
0	0	0	0	0	0	0	0	0	0	**3B5P**
2	0	0	0	0	0	0	0	0	2	**3B6P**
0	0	0	0	0	0	0	0	0	0	**4B7P**
0	0	0	0	0	0	0	0	0	0	**4B8P**
0	0	0	0	0	0	0	0	0	0	**4 Bed (H)**
									42	

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Building 14 (Private)

Flat/Unit No.														TOTALS	TOTALS
1		2		3		4		5		6		7			
Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	NSA sq.m.	NSA sq.ft.
2B4P	73	2B3P	69	2B4P	71	2B4P	73							286	3,078
2B4P	73	2B3P	69	2B4P	71	2B4P	73							286	3,078
2B4P	76	1B2P	51	2B4P	76	2B4P	76	2B4P	81	1B2P	50	2B4P	74	484	5,210
2B4P	76	1B2P	51	2B4P	76	2B4P	76	2B4P	81	1B2P	50	2B4P	74	484	5,210
2B4P	76	1B2P	51	2B4P	76	2B4P	76	2B4P	81	1B2P	50	2B4P	74	484	5,210
3B5P	89	3B5P	92	2B4P	71	1B2P	52	1B2P	50					354	3,810
														2,378	25,597

							TOTAL	
0	0	0	0	0	0	0	0	Studio
0	3	0	1	1	3	0	8	1B2P
0	2	0	0	0	0	0	2	2B3P
5	0	6	5	3	0	3	22	2B4P
0	0	0	0	0	0	0	0	3B4P
1	1	0	0	0	0	0	2	3B5P
0	0	0	0	0	0	0	0	3B6P
0	0	0	0	0	0	0	0	4B7P
0	0	0	0	0	0	0	0	4B8P
0	0	0	0	0	0	0	0	4 Bed (H)
							34	

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Building 15 (Private)

Flat/Unit No.																																TOTALS	TOTALS
1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16			
Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	NSA sq.m.	NSA sq.ft.
4B8P	154	1B2P	65	4B8P	144																											363	3,907
2B4P	*84*	1B2P	*55*	1B2P	*55*	1B2P	*59*	1B2P	*58*	1B2P	*55*	1B2P	*55*	2B4P	*84*	2B4P	*84*	1B2P	*53*	1B2P	*53*	1B2P	*58*	1B2P	*59*	1B2P	*53*	1B2P	*53*	2B4P	*84*	1,002	10,785
2B4P	*84*	1B2P	*55*	1B2P	*55*	1B2P	*59*	1B2P	*58*	1B2P	*55*	1B2P	*55*	2B4P	*84*	2B4P	*84*	1B2P	*53*	1B2P	*53*	1B2P	*58*	1B2P	*59*	1B2P	*53*	1B2P	*53*	2B4P	*84*	1,002	10,785
2B4P	*84*	1B2P	*55*	1B2P	*55*	1B2P	*59*	1B2P	*58*	1B2P	*55*	1B2P	*55*	2B4P	*84*	2B4P	*84*	1B2P	*53*	1B2P	*53*	1B2P	*58*	1B2P	*59*	1B2P	*53*	1B2P	*53*	2B4P	*84*	1,002	10,785
2B4P	*84*	1B2P	*55*	1B2P	*55*	1B2P	*59*	1B2P	*58*	1B2P	*55*	1B2P	*55*	2B4P	*84*	2B4P	*84*	1B2P	*53*	1B2P	*53*	1B2P	*58*	1B2P	*59*	1B2P	*53*	1B2P	*53*	2B4P	*84*	1,002	10,785
2B4P	*84*	1B2P	*55*	1B2P	*55*	1B2P	*59*	1B2P	*58*	1B2P	*55*	1B2P	*55*	2B4P	*84*	2B4P	*84*	1B2P	*53*	1B2P	*53*	1B2P	*58*	1B2P	*59*	1B2P	*53*	1B2P	*53*	2B4P	*84*	1,002	10,785
2B4P	*84*	1B2P	*55*	1B2P	*55*	1B2P	*59*	1B2P	*58*	1B2P	*55*	1B2P	*55*	2B4P	*84*	2B4P	*84*	1B2P	*53*	1B2P	*53*	1B2P	*58*	1B2P	*59*	1B2P	*53*	1B2P	*53*	2B4P	*84*	1,002	10,785
1B2P	*65*	1B2P	*55*	1B2P	*53*	1B2P	*65*	1B2P	*59*	1B2P	*52*	2B3P	*72*	1B2P	*57*	1B2P	*57*	2B3P	*72*	1B2P	*55*	2B4P	*79*	1B2P	*65*							806	8,676
																																7,181	77,296

																TOTAL	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**Studio**
1	8	7	7	7	7	6	1	1	6	7	6	7	6	6	0	83	**1B2P**
0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	**2B3P**
6	0	0	0	0	0	0	6	6	0	0	1	0	0	0	6	25	**2B4P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3B4P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3B5P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3B6P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4B7P**
1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	**4B8P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4 Bed (H)**
																112	

Stag Brewery
Schedule of (Residential) NSA - Hybrid Scheme
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Building 16 (Private)

Flat/Unit No.																												TOTALS	TOTALS
1		*2*		*3*		*4*		*5*		*6*		*7*		*8*		*9*		*10*		*11*		*12*		*13*		*14*			
Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	NSA sq.m.	NSA sq.ft.
2B4P	*75*	1B2P	*52*	1B2P	*52*	2B4P	*71*	2B4P	*71*	1B2P	*50*	1B2P	*50*	3B6P	*110*													531	5,716
2B4P	*71*	1B2P	*50*	1B2P	*50*	S	*44*	2B3P	*84*	S	*47*	2B4P	*70*	2B4P	*70*	S	*50*	S	*46*	S	*44*	1B2P	*52*	1B2P	*52*	2B4P	*71*	801	8,622
2B4P	*71*	1B2P	*50*	1B2P	*50*	S	*44*	2B3P	*84*	S	*47*	2B4P	*70*	2B4P	*70*	S	*50*	S	*46*	S	*44*	1B2P	*52*	1B2P	*52*	2B4P	*71*	801	8,622
2B4P	*71*	1B2P	*50*	1B2P	*50*	S	*44*	2B3P	*84*	S	*47*	2B4P	*70*	2B4P	*70*	S	*50*	S	*46*	S	*44*	1B2P	*52*	1B2P	*52*	2B4P	*71*	801	8,622
2B4P	*71*	1B2P	*50*	1B2P	*50*	S	*44*	2B3P	*84*	S	*47*	2B4P	*70*	2B4P	*70*	S	*50*	S	*46*	S	*44*	1B2P	*52*	1B2P	*52*	2B4P	*71*	801	8,622
2B4P	*71*	1B2P	*55*	2B4P	*85*	2B4P	*72*	2B4P	*80*	2B4P	*85*	2B4P	*86*	2B3P	*62*	2B4P	*72*											668	7,190
																												4,403	47,393

														TOTAL	
0	0	0	4	0	4	0	0	4	4	4	0	0	0	20	**Studio**
0	6	5	0	0	1	1	0	0	0	0	4	4	0	21	**1B2P**
0	0	0	0	4	0	0	1	0	0	0	0	0	0	5	**2B3P**
6	0	1	2	2	1	5	4	1	0	0	0	0	4	26	**2B4P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3B4P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3B5P**
0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	**3B6P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4B7P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4B8P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4 Bed (H)**
														73	

Stag Brewery

Schedule of (Residential) NSA - Hybrid Scheme

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Building 17 (Private)

Flat/Unit No.

1		2		3		4		5		6		7		8		9		10		11		12		13		14		TOTALS	TOTALS
Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	NSA sq.m.	NSA sq.ft.
3B6P	*129*	3B6P	*129*	3B6P	*128*	3B6P	*128*																					514	5,533
3B6P	*129*	3B6P	*129*	3B6P	*128*	3B6P	*128*																					514	5,533
2B4P	*71*	1B2P	*50*	1B2P	*50*	S	*44*	S	*44*	2B4P	*76*	2B4P	*76*	1B2P	*60*	S	*49*	S	*44*	S	*44*	1B2P	*52*	1B2P	*52*	2B4P	*71*	783	8,428
2B4P	*71*	1B2P	*50*	1B2P	*50*	S	*44*	S	*44*	2B4P	*76*	2B4P	*76*	1B2P	*60*	S	*49*	S	*44*	S	*44*	1B2P	*52*	1B2P	*52*	2B4P	*71*	783	8,428
2B4P	*71*	1B2P	*50*	1B2P	*50*	S	*44*	S	*44*	2B4P	*76*	2B4P	*76*	1B2P	*60*	S	*49*	S	*44*	S	*44*	1B2P	*52*	1B2P	*52*	2B4P	*71*	783	8,428
2B4P	*71*	1B2P	*50*	1B2P	*50*	S	*44*	S	*44*	2B4P	*76*	2B4P	*76*	1B2P	*60*	S	*48*	S	*44*	S	*44*	1B2P	*52*	1B2P	*52*	2B4P	*71*	782	8,417
2B4P	*75*	1B2P	*55*	S	*55*	S	*55*	2B3P	*67*	2B3P	*66*	1B2P	*56*	1B2P	*57*	2B4P	*77*											563	6,060
																												4,722	50,827

														TOTAL	
0	0	1	5	4	0	0	0	4	4	4	0	0	0	22	**Studio**
0	5	4	0	0	0	1	5	0	0	0	4	4	0	23	**1B2P**
0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	**2B3P**
5	0	0	0	0	4	4	0	1	0	0	0	0	4	18	**2B4P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3B4P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3B5P**
2	2	2	2	0	0	0	0	0	0	0	0	0	0	8	**3B6P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4B7P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4B8P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4 Bed (H)**
														73	

Stag Brewery

Schedule of (Residential) NSA - Hybrid Scheme

Rev J

13.07.22

Building 18 (Potential Social Rent)

Flat/Unit No.

1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17	
Beds	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.
2B4P	*74*	**2B4P**	*73*	**3B5P**	*95*	**2B4P**	*78*	**4B8P**	*133*	**2B4P**	*86*	**4B7P**	*125*																				
3B6P	*113*	**2B4P**	*75*	**2B4P**	*72*	**3B6P**	*110*	**3B6P**	*106*	**3B6P**	*106*	**2B4P**	*77*	**3B6P**	*118*	**3B6P**	*117*	**3B6P**	*112*	**3B6P**	*112*	**2B4P**	*77*	**3B6P**	*139*	**2B4P**	*91*	**3B6P**	*100*	**3B6P**	*119*	**3B6P**	*123*
3B6P	*107*	**3B6P**	*116*	**3B6P**	*110*	**2B4P**	*74*	**2B4P**	*77*	**2B4P**	*77*	**3B6P**	*102*	**4B8P**	*129*	**4B8P**	*130*	**2B4P**	*85*	**3B6P**	*138*	**2B4P**	*77*	**3B6P**	*134*	**2B4P**	*79*	**3B6P**	*112*	**3B6P**	*112*	**2B4P**	*77*
3B6P	*107*	**3B6P**	*129*	**3B6P**	*132*	**2B4P**	*77*	**2B4P**	*77*	**3B6P**	*130*	**4B8P**	*159*	**2B4P**	*77*	**2B4P**	*77*	**3B6P**	*126*	**2B4P**	*82*	**2B4P**	*85*	**3B6P**	*138*	**3B6P**	*131*	**2B4P**	*79*	**3B6P**	*112*	**3B6P**	*112*
3B6P	*107*	**3B6P**	*129*	**3B6P**	*132*	**2B4P**	*77*	**2B4P**	*77*	**3B6P**	*130*	**4B8P**	*159*	**2B4P**	*77*	**2B4P**	*77*	**3B6P**	*126*	**2B4P**	*82*	**2B4P**	*85*	**3B6P**	*138*	**3B6P**	*131*	**2B4P**	*79*	**3B6P**	*112*	**3B6P**	*112*
2B4P	*77*	**2B4P**	*89*	**3B6P**	*110*	**2B4P**	*116*	**3B6P**	*128*	**2B3P**	*72*	**2B4P**	*103*	**2B4P**	*72*	**2B4P**	*80*	**3B6P**	*127*	**3B6P**	140	**3B6P**	*106*	**2B4P**	*72*	**2B4P**	*77*	**3B6P**	*152*	**3B6P**	*106*	**3B6P**	*108*

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
2	3	1	5	3	2	2	3	3	1	2	4	1	3	2	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	3	4	1	2	3	1	1	1	4	3	1	4	2	3	5	4
0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
0	0	0	0	1	0	2	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Stag Brewery

Schedule of (Residential) NSA - Hybrid Scheme

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18		19		20		21		22		23		24		25		TOTALS	TOTALS
Beds	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	NSA sq.m.	NSA sq.ft.
																664	7,147
3B6P	*102*	**3B6P**	*107*													1,976	21,269
3B6P	*139*	**2B4P**	*91*	**2B4P**	*75*	**3B6P**	*119*	**3B6P**	*123*	**3B6P**	*102*	**3B6P**	*107*			2,492	26,824
2B4P	*77*	**3B6P**	*139*	**2B4P**	*91*	**2B4P**	*77*	**3B6P**	*119*	**3B6P**	*123*	**3B6P**	*102*	**3B6P**	*107*	2,665	28,686
2B4P	*77*	**3B6P**	*139*	**2B4P**	*91*	**2B4P**	*77*	**3B6P**	*119*	**3B6P**	*123*	**3B6P**	*102*	**3B6P**	*107*	2,665	28,686
2B4P	*77*	**2B4P**	*73*													1,885	20,290
																12,347	**132,902**

								TOTAL	
0	0	0	0	0	0	0	0	0	**Studio**
0	0	0	0	0	0	0	0	0	**1B2P**
0	0	0	0	0	0	0	0	1	**2B3P**
3	2	3	2	0	0	0	0	48	**2B4P**
0	0	0	0	0	0	0	0	0	**3B4P**
0	0	0	0	0	0	0	0	1	**3B5P**
2	3	0	1	3	3	3	2	63	**3B6P**
0	0	0	0	0	0	0	0	1	**4B7P**
0	0	0	0	0	0	0	0	5	**4B8P**
0	0	0	0	0	0	0	0	0	**4 Bed (H)**
								119	

Stag Brewery
Schedule of (Residential) NSA - Hybrid Scheme
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Building 19 (Potential Social Rent)

Flat/Unit No.																										TOTALS	TOTALS
1		2		3		4		5		6		7		8		9		10		11		12		13		14			
Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	NSA sq.m.	NSA sq.ft.
3B6P	109	2B4P	73	2B4P	73	3B5P	87	3B5P	86	2B4P	73	2B4P	73	3B6P	119													693	7,459
3B6P	98	2B4P	70	1B2P	52	3B6P	131	1B2P	59	1B2P	59	3B6P	103	3B6P	131	1B2P	52	2B4P	70	3B6P	106	3B6P	103	1B2P	59	1B2P	59	1,152	12,400
3B6P	98	2B4P	70	1B2P	52	3B6P	131	1B2P	59	1B2P	59	3B6P	103	3B6P	131	1B2P	52	2B4P	70	3B6P	106	3B6P	103	1B2P	59	1B2P	59	1,152	12,400
3B5P	88	2B3P	64	3B6P	131	2B4P	84	2B4P	79	3B6P	131	2B3P	64	3B6P	97	2B4P	79	2B4P	84									901	9,698
																												3,898	41,958

														TOTAL	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**Studio**
0	0	2	0	2	2	0	0	2	0	0	0	2	2	12	**1B2P**
0	1	0	0	0	0	1	0	0	0	0	0	0	0	2	**2B3P**
0	3	1	1	1	1	1	0	1	3	0	0	0	0	12	**2B4P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3B4P**
1	0	0	1	1	0	0	0	0	0	0	0	0	0	3	**3B5P**
3	0	1	2	0	1	2	4	0	0	2	2	0	0	17	**3B6P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4B7P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4B8P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4 Bed (H)**
														46	

Stag Brewery

Schedule of (Residential) NSA - Hybrid Scheme

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Plot 2A Private

Building Level	NSA sq.m.	NSA sq.ft.
12	*0*	0
11	*0*	0
10	*0*	0
9	*0*	0
8	*0*	0
7	*363*	3,907
6	*1,516*	16,318
5	*2,670*	28,740
4	*3,209*	34,541
3	*3,651*	39,299
2	*3,651*	39,299
1	*3,650*	39,288
0	*2,864*	30,828
B1	*0*	0
B2	*0*	0
	21,574	232,220

Plot 2A Potential Affordable

Building Level	NSA sq.m.	NSA sq.ft.
12	*0*	0
11	*0*	0
10	*0*	0
9	*0*	0
8	*0*	0
7	*0*	0
6	*0*	0
5	*664*	7,147
4	*1,976*	21,269
3	*3,185*	34,283
2	*3,817*	41,086
1	*3,817*	41,086
0	*2,786*	29,988
B1	*0*	0
B2	*0*	0
	16,245	174,860

Combined Plot 2A

Building Level	NSA sq.m.	NSA sq.ft.
12	*0*	0
11	*0*	0
10	*0*	0
9	*0*	0
8	*0*	0
7	*363*	3,907
6	*1,516*	16,318
5	*3,334*	35,887
4	*5,185*	55,811
3	*6,836*	73,582
2	*7,468*	80,385
1	*7,467*	80,374
0	*5,650*	60,816
B1	*0*	0
B2	*0*	0
	37,819	#####

TOTAL PLOT 2A PRIVATE	
Studio	45
1B2P	151
2B3P	14
2B4P	109
3B4P	0
3B5P	2
3B6P	11
4B7P	0
4B8P	2
	0
4 Bed (H)	0
	334

TOTAL PLOT 2A AFFORDABLE	
Studio	0
1B2P	12
2B3P	3
2B4P	60
3B4P	0
3B5P	4
3B6P	80
4B7P	1
4B8P	5
	0
4 Bed (H)	0
	165

TOTAL PLOT 2A	
Studio	45
1B2P	163
2B3P	17
2B4P	169
3B4P	0
3B5P	6
3B6P	91
4B7P	1
4B8P	7
	0
4 Bed (H)	0
	499

Stag Brewery

Schedule of (Residential) NSA - Hybrid Scheme

Rev J

13.07.22

Building 20 (Private)

1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		TOTALS	TOTALS
Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	Beds	NSA sq.m.	NSA sq.m.	NSA sq.ft.
	43		*43*		*43*		*43*		*43*		*43*		*56*		*56*		*56*		*56*		*43*		*43*		*43*		*43*		*43*		*43*	740	7,965
	43		*43*		*43*		*43*		*43*		*43*		*56*		*56*		*56*		*56*		*43*		*43*		*43*		*43*		*43*		*43*	740	7,965
3H	*43*	3H	*43*	3H	*43*	3H	*43*	3H	*43*	3H	*43*	4H	*56*	4H	*56*	4H	*56*	4H	*56*	3H	*43*	3H	*43*	3H	*43*	3H	*43*	3H	*43*	3H	*43*	740	7,965
																																2,220	23,896

																TOTAL	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**Studio**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1B2P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2B3P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2B4P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3B4P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3B5P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3B6P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4B7P**
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4B8P**
1	1	1	1	1	1	0	0	0	0	1	1	1	1	1	1	12	**3 Bed (H)**
0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	4	**4 Bed (H)**
																16	

Stag Brewery
Schedule of (Residential) NSA - Hybrid Scheme
Rev J

13.07.22

Building 21 (Private)

Flat/Unit No.														TOTALS	TOTALS
1		*2*		*3*		*4*		*5*		*6*		*7*			
Beds	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	**Beds**	NSA sq.m.	NSA sq.m.	NSA sq.ft.
	56		*56*		*56*		*56*		*56*		*56*		*56*	392	4,219
	56		*56*		*56*		*56*		*56*		*56*		*56*	392	4,219
4H	*56*	**4H**	*56*	**4H**	*56*	**4H**	*56*	**4H**	*56*	**4H**	*56*	**4H**	*56*	392	4,219
														1,176	12,658

TOTAL	
0	**Studio**
0	**1B2P**
0	**2B3P**
0	**2B4P**
0	**3B4P**
0	**3B5P**
0	**3B6P**
0	**4B7P**
0	**4B8P**
0	**3 Bed (H)**
7	**4 Bed (H)**
7	

Plot 2B Private

Building Level	NSA sq.m.	NSA sq.ft.
12	*0*	0
11	*0*	0
10	*0*	0
9	*0*	0
8	*0*	0
7	*0*	0
6	*0*	0
5	*0*	0
4	*0*	0
3	*0*	0
2	*1,132*	12,185
1	*1,132*	12,185
0	*1,132*	12,185
B1	*0*	0
B2	*0*	0
	3,396	36,554

TOTAL PLOT 2B	
Studio	0
1B2P	0
2B3P	0
2B4P	0
3B4P	0
3B5P	0
3B6P	0
4B7P	0
4B8P	0
3 Bed (H)	12
4 Bed (H)	11
	23

Combined Plot 2B

Building Level	NSA sq.m.	NSA sq.ft.
12	*0*	0
11	*0*	0
10	*0*	0
9	*0*	0
8	*0*	0
7	*0*	0
6	*0*	0
5	*0*	0
4	*0*	0
3	*0*	0
2	*1,132*	12,185
1	*1,132*	12,185
0	*1,132*	12,185
B1	*0*	0
B2	*0*	0
	3,396	36,554

TOTAL PLOT 2B	
Studio	0
1B2P	0
2B3P	0
2B4P	0
3B4P	0
3B5P	0
3B6P	0
4B7P	0
4B8P	0
3 Bed (H)	12
4 Bed (H)	11
	23

Combined Total Private (All Plots and Phases)

Building Level	NSA sq.m.	NSA sq.ft.
12	*0*	0
11	*0*	0
10	*0*	0
9	*0*	0
8	*549*	5,909
7	*4,128*	44,433
6	*6,138*	66,069
5	*8,450*	90,955
4	*9,372*	100,879
3	*10,517*	113,204
2	*11,650*	125,399
1	*11,421*	122,935
0	*6,325*	68,082
B1	*0*	0
B2	*0*	0
	68,550	737,865

TOTAL PRIVATE	
Studio	45
1B2P	241
2B3P	112
2B4P	284
3B4P	0
3B5P	31
3B6P	122
4B7P	7
4B8P	2
3 Bed (H)	12
4 Bed (H)	11
	867

Combined Total Potential Affordable (All Plots and Phases)

Building Level	NSA sq.m.	NSA sq.ft.
12	*0*	0
11	*0*	0
10	*0*	0
9	*0*	0
8	*0*	0
7	*0*	0
6	*0*	0
5	*840*	9,042
4	*2,542*	27,362
3	*3,751*	40,375
2	*4,383*	47,178
1	*4,383*	47,178
0	*2,786*	29,988
B1	*0*	0
B2	*0*	0
	18,685	201,123

TOTAL AFFORDABLE	
Studio	0
1B2P	34
2B3P	3
2B4P	77
3B4P	0
3B5P	4
3B6P	80
4B7P	1
4B8P	5
3 Bed (H)	0
4 Bed (H)	0
	204

Total NSA (Private + Potential Affordable)

Building Level	NSA sq.m.	NSA sq.ft.
12	*0*	0
11	*0*	0
10	*0*	0
9	*0*	0
8	*549*	5,909
7	*4,128*	44,433
6	*6,138*	66,069
5	*9,290*	99,997
4	*11,914*	128,241
3	*14,268*	153,579
2	*16,033*	172,578
1	*15,804*	170,113
0	*9,111*	98,070
B1	*0*	0
B2	*0*	0
	87,235	938,989

TOTAL	
Studio	45
1B2P	275
2B3P	115
2B4P	361
3B4P	0
3B5P	35
3B6P	202
4B7P	8
4B8P	7
3 Bed (H)	12
4 Bed (H)	11
	1071

Development Area 1

	Studio	1 bed	2 bed 3 person	2 bed 4 person	3 bed	4 bed	**Total**	**Habitable rooms**	**NSA (m2)**
Building 10	0	22	0	17	0	0	**39**	**95**	**2,440**
Total	-	22	-	17	-	-	**39**	**95**	**2,440**
Percentage	0%	56%	0%	44%	0%	0%			

Combined Development Areas 1 & 2

	Studio	1 bed	2 bed 3 person	2 bed 4 person	3 bed	4 bed	**Total**	**Habitable rooms**	**NSA (m2)**
	0	22	0	17	0	0	**39**	**95**	**2,440**
Total	-	22	-	17	-	-	**39**	**95**	**2,440**
Percentage	0%	56%	0%	44%	0%	0%			

Development Area 2

	1 bed	2 bed 3 person	2 bed 4 person	3 bed	4 bed	**Total**	**Habitable rooms**	**NSA (m2)**
Building 18	0	1	48	64	6	**119**	**433**	**12,347**
Building 19	12	2	12	20	0	**46**	**146**	**3,898**
Total	12	3	60	84	6	**165**	**579**	**16,245**
Percentage	7%	2%	36%	51%	4%			

Combined Development Areas 1 & 2

	1 bed	2 bed 3 person	2 bed 4 person	3 bed	4 bed	**Total**	**Habitable rooms**	**NSA (m2)**
Area 2	12	3	60	84	6	**165**	**579**	**16,245**
Total	12	3	60	84	6	**165**	**579**	**16,245**
Percentage	7%	2%	36%	51%	4%			

Areas are approximate only and subject to change through survey, planning, design and development of the proposa

Development Area 1

	Studio	1 bed	2 bed	3 bed	4 bed	**Total**	**Habitable rooms**	**NSA (m2)**
Building 10	0	22	17	0	0	**39**	**95**	**2,440**
Total	-	22	17	-	-	**39**	**95**	**2,440**
Percentage	0%	56%	44%	0%	0%			

Development Area 2

	Studio	1 bed	2 bed	3 bed	4 bed	**Total**	**Habitable rooms**	**NSA (m2)**
Building 18	0	0	49	64	6	**119**	**433**	**12,347**
Building 19	0	12	14	20	0	**46**	**146**	**3,898**
Total	-	12	63	84	6	**165**	**579**	**16,245**
Percentage	0%	7%	38%	51%	1%			

Combined Development Areas 1 & 2

	1 bed	1 bed	2 bed	3 bed	4 bed	**Total**	**Habitable rooms**	**NSA (m2)**
Area 1	-	22	17	-	-	**39**	**95**	**2,440**
Area 2	-	12	63	84	6	**165**	**579**	**16,245**
Total	-	34	80	84	6	**204**	**674**	**18,685**
Percentage	0%	17%	39%	41%	3%			

Areas are approximate only and subject to change through survey, planning, design and development of the proposal

Development Area 2 is applied for in outline and therefore the unit NSA areas are subject to change through detailed design and the submission of subsequent reserved matters applications

Development Area 1

	Studio	1 bed	2 bed	3 bed	4 bed	Total	Habitable rooms	NSA (m2)
Building 2	0	22	63	33	0	118	365	10,279
Building 3	0	8	27	13	0	48	149	3,870
Building 4	0	0	15	5	0	20	65	2,135
Building 6	0	4	14	6	0	24	74	1,906
Building 7	0	19	47	21	0	87	263	6,948
Building 8	0	22	43	33	2	100	315	8,548
Building 9	0	0	6	3	4	13	50	1,286
Building 11	0	11	21	19	1	52	166	4,714
Building 12	0	4	37	7	0	48	147	3,894
Total	-	90	273	140	7	510	1,594	43,580
Percentage	0%	18%	54%	27%	1%			

Development Area 2

	Studio	1 bed	2 bed	3 bed	4 bed	Total	Habitable rooms	NSA (m2)
Building 13	3	16	21	2	0	42	106	2,890
Building 14	0	8	24	2	0	34	96	2,378
Building 15	0	83	27	0	2	112	257	7,181
Building 16	20	21	31	1	0	73	159	4,403
Building 17	22	23	20	8	0	73	160	4,722
Building 20	0	0	0	12	4	16	84	2,220
Building 21	0	0	0	0	7	7	42	1,176
Total	45	151	123	25	13	357	904	24,970
Percentage	13%	42%	34%	7%	4%			

Combined Development Areas 1 & 2

	1 bed	1 bed	2 bed	3 bed	4 bed	Total	Habitable rooms	NSA (m2)
Area 1	-	90	273	140	7	510	1,594	43,580
Area 2	45	151	123	25	13	357	904	24,970
Total	45	241	396	165	20	867	2,498	68,550
Percentage	5%	28%	46%	19%	2%			

Areas are approximate only and subject to change through survey, planning, design and development of the proposal

Stag Brewery | **Private/ Potential Affordable Mix and Ratio | Hybrid Scheme** | 13.07.22 | Rev J

Development Area 1

	Studio	1 bed	2 bed	3 bed	4 bed	**Total Units**	Percentage	**Habitable rooms**	Percentage	**NSA (m2)**	Percentage
Private	0	90	273	140	7	**510**	93%	**1,594**	94%	**43,580**	95%
Affordable	0	22	17	0	0	**39**	7%	**95**	6%	**2,440**	5%
Total	-	112	290	140	7	**549**		**1,689**		**46,020**	
Percentage	0%	20%	53%	26%	1%						

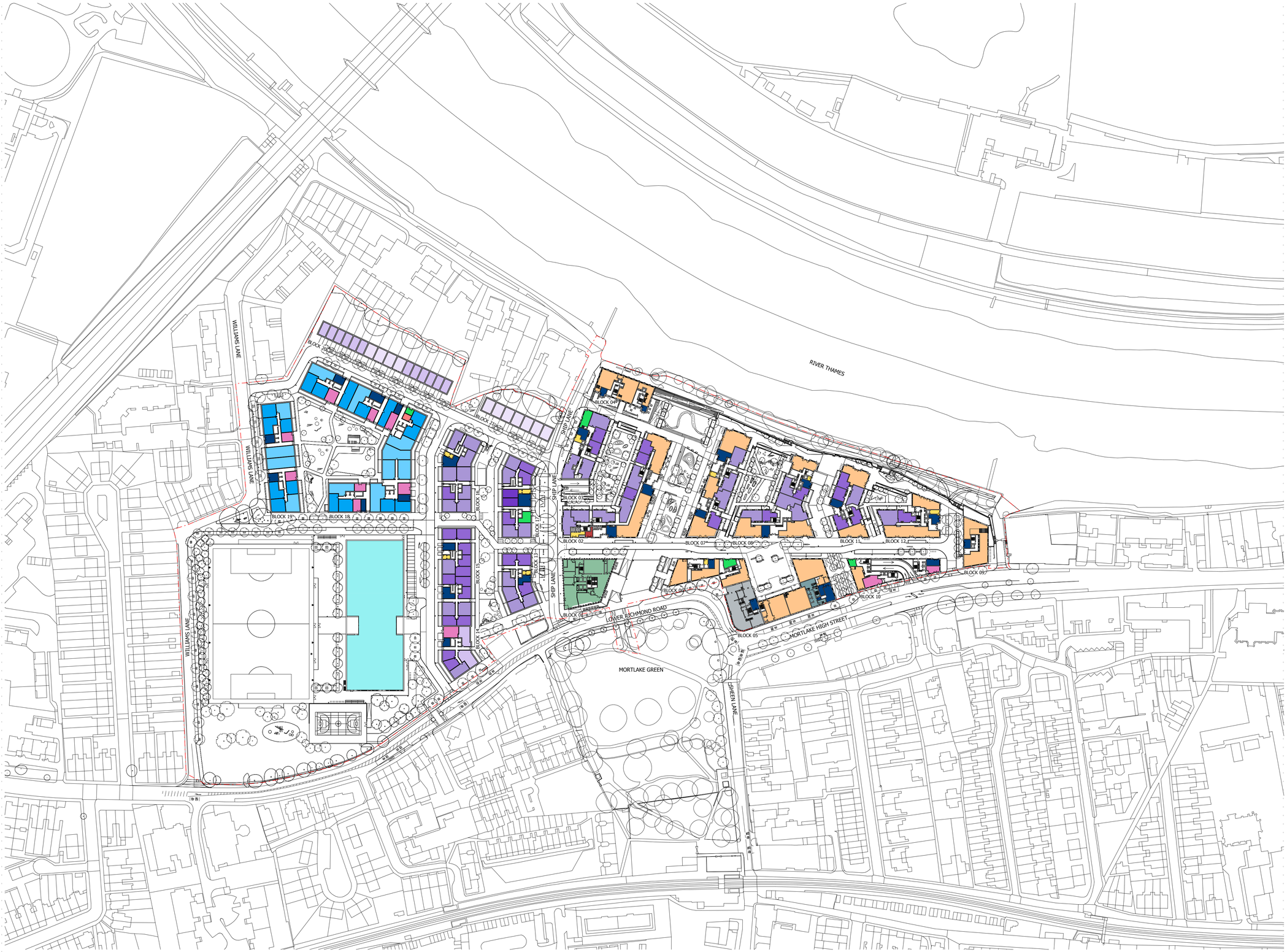
Development Area 2

	Studio	1 bed	2 bed	3 bed	4 bed	**Total Units**	Percentage	**Habitable rooms**	Percentage	**NSA (m2)**	Percentage
Private	45	151	123	25	13	**357**	68%	**904**	61%	**24,970**	61%
Affordable	0	12	63	84	6	**165**	32%	**579**	39%	**16,245**	39%
Total	45	151	123	25	13	**522**		**1,483**		**41,215**	
Percentage	9%	29%	8%	5%	1%						

Combined Development Areas 1 & 2

	Studio	1 bed	2 bed	3 bed	4 bed	**Total Units**	Percentage	**Habitable rooms**	Percentage	**NSA (m2)**	Percentage
Private	45	241	396	165	20	**867**	81%	**2,498**	79%	**68,550**	79%
Affordable	0	34	80	84	6	**204**	19%	**674**	21%	**18,685**	21%
Total	45	275	476	249	26	**1,071**		**3,172**		**87,235**	
Percentage	4%	26%	44%	23%	2%						

Areas are approximate only and subject to change through survey, planning, design and development of the proposal



NOTES:

DO NOT SCALE FROM THIS DRAWING. ALL DIMENSIONS TO BE CHECKED ON SITE. ALL OMISSIONS AND DISCREPANCIES TO BE REPORTED TO THE ARCHITECT IMMEDIATELY.

NOTE: UNIT MIX AND LAYOUT FOR DEVELOPMENT AREA 2 IS INDICATIVE AT THIS STAGE

- Studio
- 1B2P
- 2B3P
- 2B4P
- 3B5P
- 3B6P
- 4B8P
- 2B3P SR
- 2B4P SR
- 3B5P SR
- 3B6P SR
- BIKE STORE
- CAR PARK ENTRANCE
- CINEMA
- FLEXIBLE USE
- GAS METER ROOM
- HOTEL
- LV SWITCHROOM
- OFFICE
- REFUSE STORE
- SCHOOL
- SUBSTATION

Revision description	Date	Check	Rev
LBRUT 2 APPLICATION AMENDMENTS	21/07/22	BJ	F
LBRUT 2 APPLICATION	25/02/22	BJ	E
FINAL DRAFT HYBRID SUBMISSION	07/01/22	RKB	D
GLA SUBMISSION	27/04/20	BJ	C
DRAFT GLA SUBMISSION	24/01/20	KH	B
FINAL DRAFT PLANNING APPLICATION	21/10/19	KH	A
LEGAL REVIEW	13/09/19	KH	-

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Project

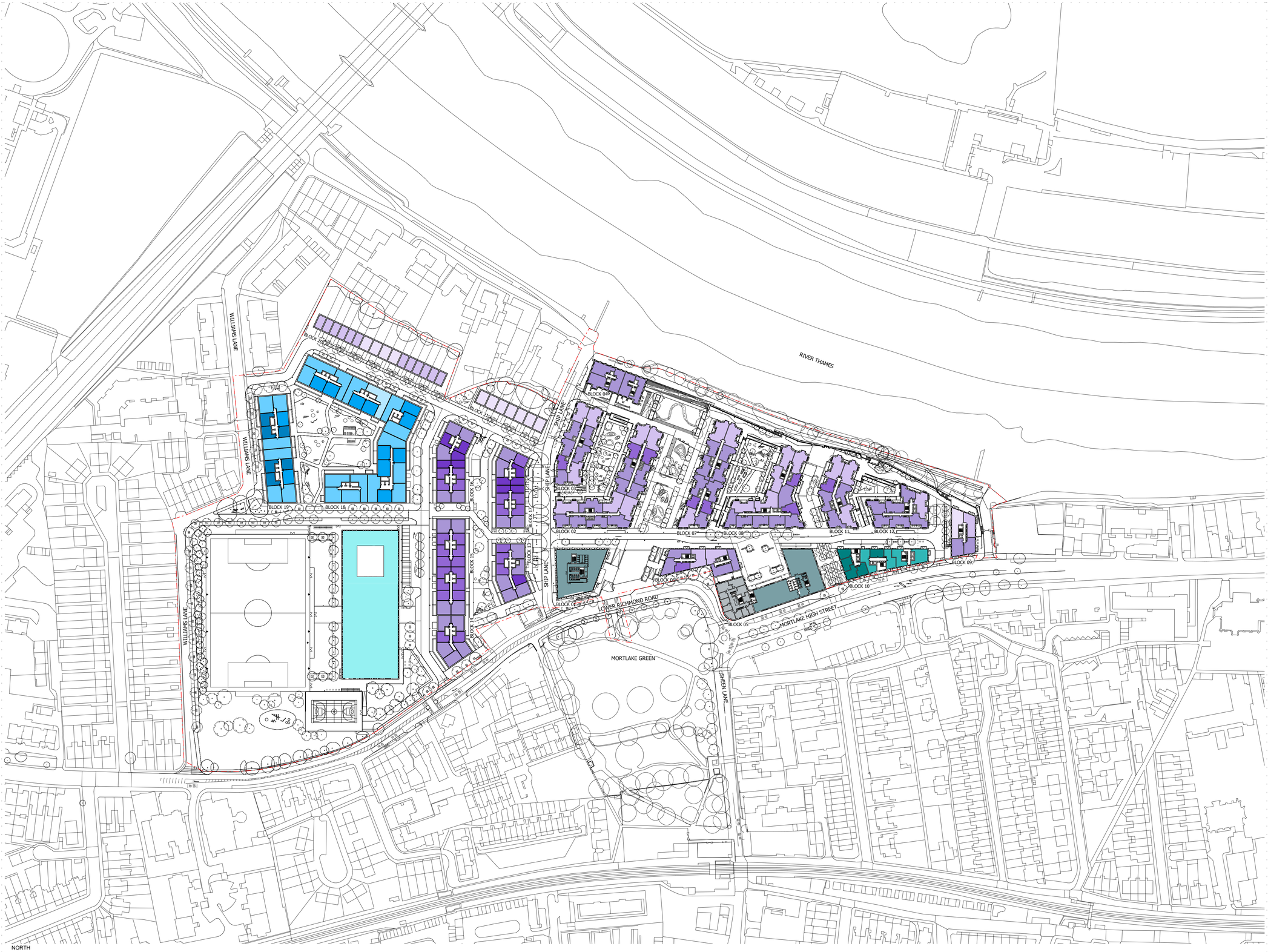
Stag Brewery
Richmond

Drawing

PROPOSED MASTERPLAN
GROUND FLOOR LEVEL

Drawn	Date	Scale
TC	18/01/18	1 : 1250 @ A1 1 : 2500 @ A3

Job Number	Drawing number	Revision
18125	C645_MP_P_00_001	F



NOTES:

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NOTE: UNIT MIX AND LAYOUT FOR DEVELOPMENT AREA 2 IS INDICATIVE AT THIS STAGE

- Studio
- 1B2P
- 2B3P
- 2B4P
- 3B5P
- 3B6P
- 4B7P
- 4B8P
- 1B2P INT
- 2B4P INT
- 1B2P SR
- 2B4P SR
- 3B6P SR
- 4B8P SR
- HOTEL
- OFFICE
- SCHOOL

Revision description	Date	Check	Rev
LBRUT 2 APPLICATION AMENDMENTS	21/07/22	BJ	F
LBRUT 2 APPLICATION	25/02/22	BJ	E
FINAL DRAFT HYBRID SUBMISSION	07/01/22	RKB	D
GLA SUBMISSION	27/04/20	BJ	C
DRAFT GLA SUBMISSION	24/01/20	KH	B
FINAL DRAFT PLANNING APPLICATION	21/10/19	KH	A
LEGAL REVIEW	13/09/19	KH	-

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Project

Stag Brewery
Richmond

Drawing

PROPOSED MASTERPLAN TYPICAL FLOOR LEVEL

Drawn	Date	Scale
TC	18/01/18	1 : 1250 @ A1 1 : 2500 @ A3

Job Number	Drawing number	Revision
18125	C645_MP_P_TY_001	F

NORTH

NOTE: UNIT MIX AND LAYOUT FOR DEVELOPMENT AREA 2 IS INDICATIVE AT THIS STAGE

NOTE:

WHEELCHAIR ACCESSIBLE UNIT / CONVERTIBLE UNIT

- Studio
- 1B2P
- 2B3P
- 2B4P
- 3B5P
- 3B6P
- 4B8P
- 2B3P SR
- 2B4P SR
- 3B5P SR
- 3B6P SR
- BIKE STORE
- CAR PARK ENTRANCE
- LV SWITCHROOM
- REFUSE STORE
- SCHOOL
- SUBSTATION

Revision description	Date	Check	Rev
LBRUT 2 APPLICATION AMENDMENTS	21/07/22	BJ	E
LBRUT 2 APPLICATION	25/02/22	BJ	D
GLA SUBMISSION	27/04/20	BJ	C
DRAFT GLA SUBMISSION	24/01/20	KH	B
FINAL DRAFT PLANNING APPLICATION	21/10/19	KH	A
LEGAL REVIEW	13/09/19	KH	-

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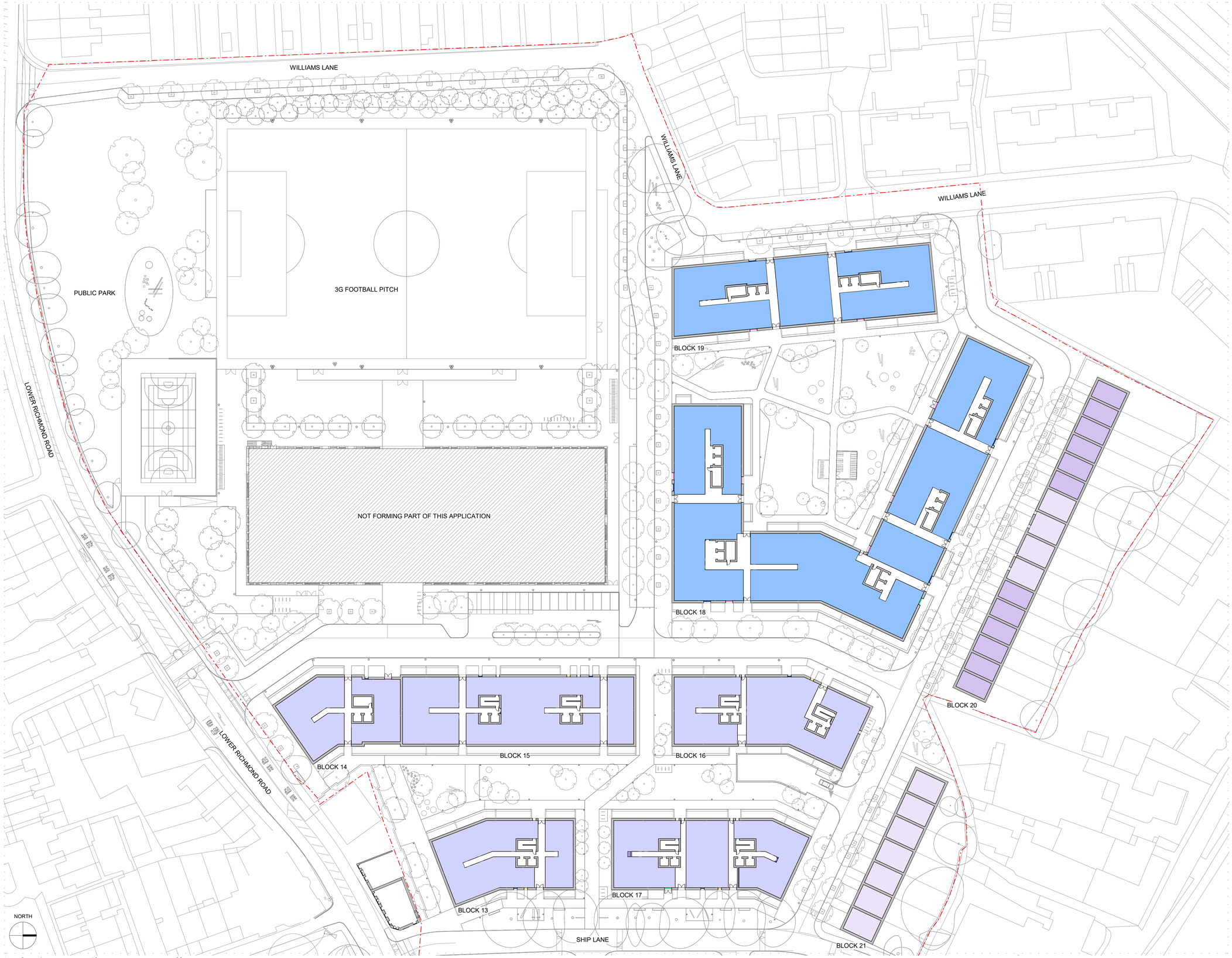
Drawing

PROPOSED DEVELOPMENT AREA 02
GROUND LEVEL PLAN

Drawn	Date	Scale
RKL	18/01/18	1 : 500 @ A1 1 : 1000 @ A3

Job Number	Drawing number	Revision
18125	C645_Z2_P_00_001	E



NORTH

NOTE: UNIT MIX AND LAYOUT FOR DEVELOPMENT AREA 2 IS INDICATIVE AT THIS STAGE

RESIDENTIAL - PRIVATE

RESIDENTIAL - POTENTIAL SOCIAL RENT

SCHOOL

Revision description	Date	Check	Rev
LBRUT 2 APPLICATION AMENDMENTS	21/07/22	BJ	E
LBRUT 2 APPLICATION	25/02/22	BJ	D
LEGAL REVIEW COMMENTS	21/05/20	BJ	C
GLA SUBMISSION	27/04/20	BJ	B
DRAFT GLA SUBMISSION	24/01/20	KH	A
FINAL DRAFT PLANNING APPLICATION	21/10/19	KH	-

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Project

Stag Brewery
Richmond

Drawing

PROPOSED DEVELOPMENT AREA 02
GROUND LEVEL PLAN

Drawn	Date	Scale
RKL	18/01/18	1 : 500 @ A1 1 : 400 @ A3

Job Number	Drawing number	Revision
18125	C645_Z2_P_00_002	E