



TECHNICAL MEMO

DATE:	01 July 2024	CONFIDENTIALITY:	Public
SUBJECT:	Fair Oak Express – Car Wash Investigation – Verification Memo		
PROJECT:	UK-70113388	AUTHOR:	Katy Woodhouse
CHECKED:	Rhys Evans	APPROVED:	Rhys Evans

1.0 INTRODUCTION

WSP UK Ltd (WSP) was commissioned by Artelia UK Ltd (Artelia) acting on behalf of Esso Petroleum Company Ltd (Esso) to undertake a contaminated land watching brief during demolition and construction activities associated with the works at Fair Oak Express Service Station.

A site location plan is appended as **Figure 1** in **Appendix A**.

2.0 BACKGROUND AND SETTING

The Site is located within the Fair Oak Express Service Station, located off Winchester Road, Fair Oak, Hampshire SO50 7HD. The Site is comprised of a former car wash and associated access roads and adjacent parking bays.

The existing and proposed site layout is appended as **Figure 2** and **Figure 3** in **Appendix A**.

The proposed works (as described in Section 3) are subject to conditions imposed by the Local Authority in relation to planning application F/23/95964 permitted on 30th November 2023, and comprised:

“Removal of car wash including building, plant room enclosure and works to associated access roads to provide additional customer parking.”

The full text of the conditions is included in **Appendix B**. Conditions 4 relates to contaminated land and the scope of this technical memo as presented below:

“4) A contaminated land watching brief shall be followed at all time during demolition / construction works and confirm of this shall be submitted to the Local Planning Authority prior to the first use of the approved car park. The watching brief shall cover the following details:

- a) the car wash demolition*
- b) the removal of existing foundations*
- c) the installation of new below ground drainage runs (if / where necessary).”*

In the event that previously unidentified contamination is found during the watching brief it must be immediately reported to the Local Planning Authority. Work shall then cease until an investigation and risk assessment, and where required a remediation scheme, has been submitted to and approved in writing by the Local Planning Authority. Where a remediation scheme is required by the Local Planning Authority, the development shall not be brought into use until a verification report for the remediation work has been submitted to and approved in writing by the Local Planning Authority. All works shall be undertaken by a competent person in accordance with best practice as outlined in BS10175:2011+A2:2017 and LCRM. Any gas monitoring deemed appropriate is to be in accordance with best practice as outlined in such documents as BS8576:2013, BS 8485:2015+A1:2019, Claire RB17 and CIRIA C665.

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3.0 SUMMARY OF WORKS

3.1 Summary of Redevelopment Works

The redevelopment works were undertaken by Fox Construction Ltd. commencing in May 2024 and completed in June 2024 and comprised the following works:

- Removal of carwash and associated equipment including air and water dispenser.
- Emptying of silt trap and interceptor (to be retained);
- Breaking out of carwash area and adjacent forecourt;
- Installation of necessary utilities (ducting, drainage)
- Reinstatement works to include backfill with type 1 quarried aggregate, surface concrete/tarmac installation, installation of new kerb lines to create new parking bays and inclusion of an area of soft landscaping;
- Installation of new air, water and screen wash machine.

The site layout plan following construction works is included as **Figure 3 in Appendix A**.

Prior to demolition an asbestos refurbishment survey of the former car wash building was undertaken by SGS (report number J242789) dated March 2024. The report states that no asbestos materials was identified during the survey. The report should be referred to for further detail.

3.2 Summary of WSP Environmental Works:

To fulfil the requirements of Condition 4, WSP were in attendance during demolition and ground disturbance activities. The following site visits were undertaken in support of the demolition of the former car wash:

- 8th – 9th May 2024: attendance during the demolition of the car wash;
- 10th May 2024: attendance to obtain soils samples from beneath the former car wash silt trap/interceptor;
- 14th May 2024: attendance to supervise the excavations for proposed kerbing areas;
- 16th May 2024: attendance to supervise and obtain soil samples from a trench excavation for new ducting;
- 22nd May 2024: attendance to supervise stripping or tarmac and laying of ducting;
- 30th May 2024: attendance to supervise concrete pour;
- 19th June 2024: attendance to obtain soil samples from area of soft landscaping.

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4.0 WSP OBSERVATIONS

During the watching brief works no visual or olfactory evidence of contamination was noted. No potential asbestos containing materials (ACMs) were noted by WSP staff or Fox Construction staff, with all individuals having asbestos awareness training.

Ground conditions were noted to be consistent with the findings of the previous ground investigation works which have previously been submitted to the local planning authority to satisfy a previous planning application (ref. F/22/92617):

- Fair Oak Express Servicer Station, Phase 2 Environmental Site Assessment, WSP, ref. 70091303-P2, March 2022
- Fair Oak Express Service Station, Environmental Report on Site Redevelopment, WSP, ref. 70091303-ERSR, November 2022

Underlying geology typically comprised limited thicknesses of Made Ground of reworked gravelly/cobbly clay overlying natural soils described as soft to firm mottled brown/yellow brown/grey silty sandy clay with abundant relic rootlets. No groundwater was encountered during excavation works.

5.0 SAMPLING AND TESTING

In total ten soil samples were obtained during the watching brief works. The samples are summarised below and shown on the Sampling Plan appended as **Figure 4** in **Appendix A**.

- CW1 & CW2 - Sample from beneath the car wash silt trap/interceptor;
- CW3 – Sample from a trench south of the existing forecourt interceptor;
- CW4 – Sample from side of trench adjacent to existing separator;
- CW5 – Sample from base of trench near western boundary;
- SS1-SS5 – Samples from area of soft landscaping.

The samples were tested for a suite of contaminants including metals, total petroleum hydrocarbons (TPH CWG), polycyclic aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), semi volatile organic compounds (SVOCs) and asbestos. All laboratory analysis was completed by ALS laboratories, Hawarden; a UKAS accredited laboratory.

Laboratory certificates showing the requested testing and results are appended as **Appendix D**.

5.0 RESULTS

The laboratory results have shown generally low contaminant concentrations in the five samples tested, with many determinants below their laboratory detection limit (LOD). Very low concentrations of total



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petroleum hydrocarbons (TPH) were noted in CW1 and CW2 and of polycyclic aromatic hydrocarbons (PAHs) in CW3.

However, comparison of the results against the Generic Assessment Criteria (GAC) for a commercial scenario (based on the continuing commercial use) have shown that contaminant concentrations are below their respective GACs. The results of the screening as presented in **Appendix C**.

In addition, asbestos was not identified in the ten samples tested.

On the basis of the above information, the redevelopment works are considered to results in a low risk to human health based on the continued commercial use of the Site.

Whilst risks to controlled waters have not been quantitatively assessed as part of this report, the laboratory results have confirmed the absence of elevated concentrations of highly soluble or mobile risk driver compounds (such as light end TPH fractions of BTEX compounds) that could represent a potential risk to the identified controlled waters receptors. In addition, the removal of Made Ground and presence of hard standing across the majority of the site is considered to reduce surface infiltration of rainwater. On the basis of the above, the risk to controlled waters is considered to be low.

8.0 CONCLUSION

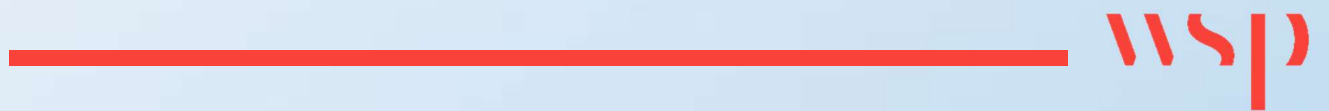
Based on the available data, the site is not considered to pose an unacceptable risk to human health or controlled water receptors.

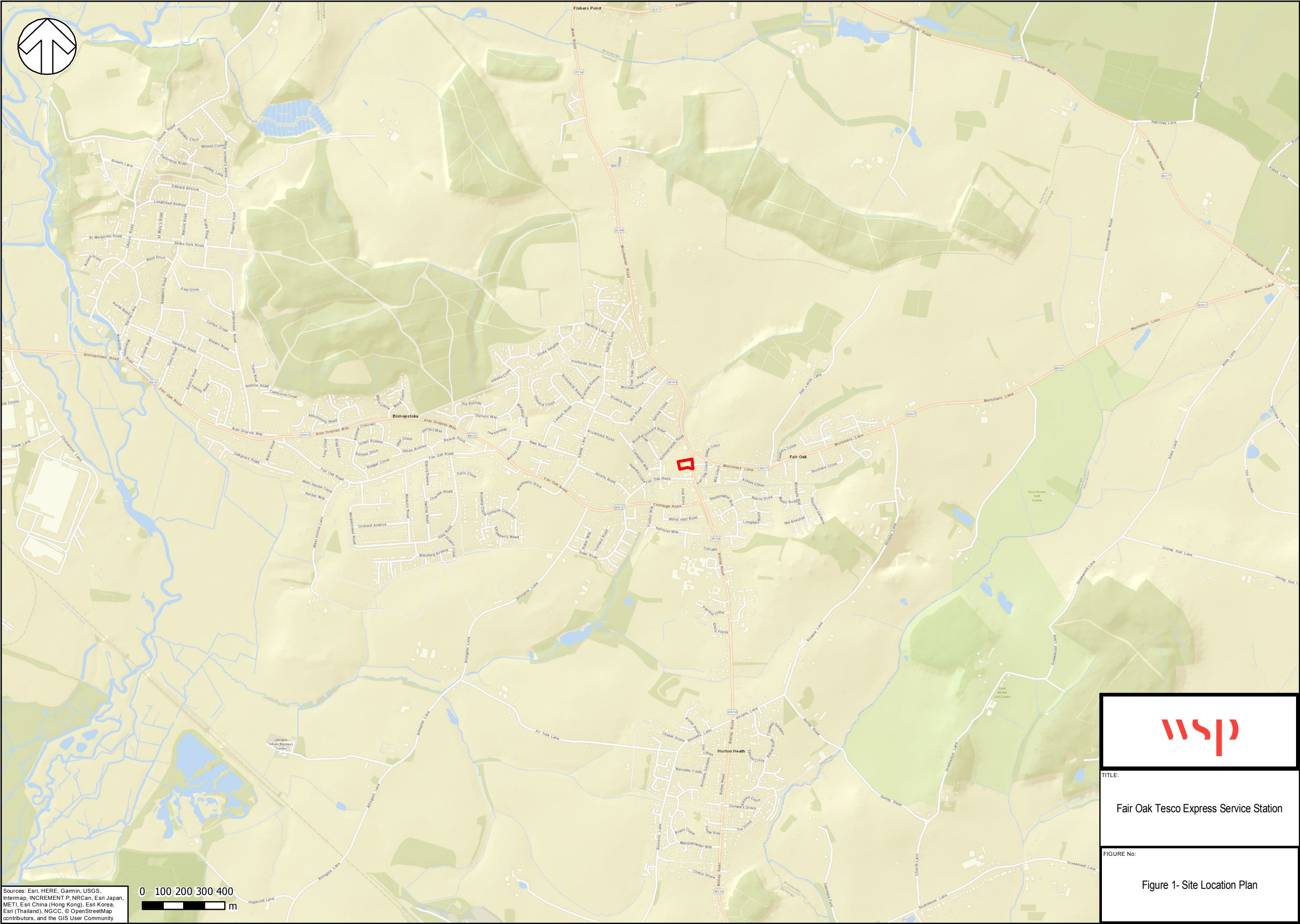
Should any of the conditions on which the risk assessment has been based alter in the future, then the risk assessment should be updated accordingly to reflect these factors.

The works contained within this memorandum are suitable to discharge Condition 4 of planning application F/23/95964.

Appendix A

FIGURES





Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

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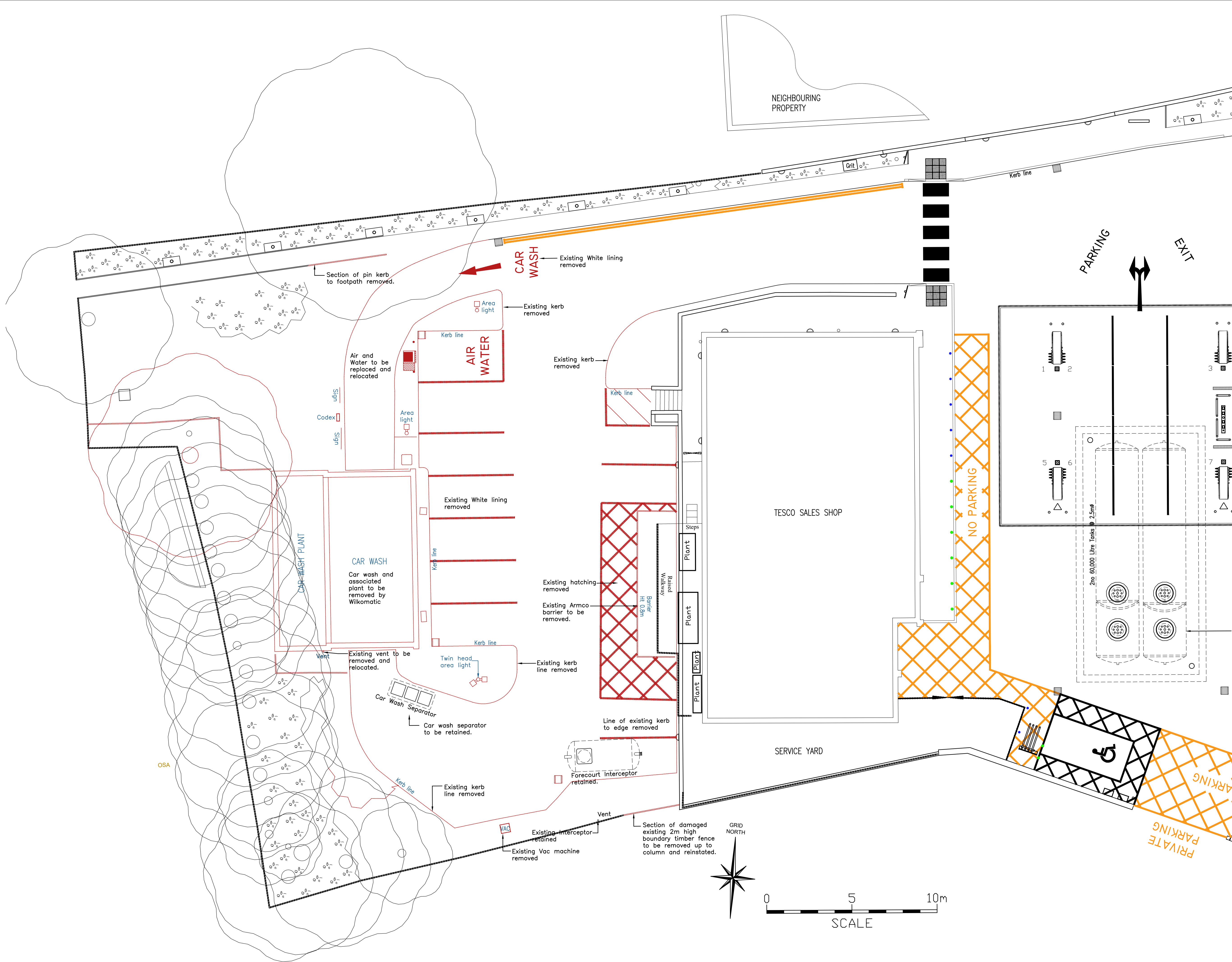


TITLE:

Fair Oak Tesco Express Service Station

FIGURE No:

Figure 1- Site Location Plan



Revision	Date	By	Chk
All dimensions to be verified on site, and the Architect informed of any discrepancy. All drawings and specifications should be read in conjunction with the Health and Safety Plan; all conflicts should be reported to the appointed Principal Designer.			



Esso Petroleum Company Limited
Fair Oak Express
Winchester Road, Fair Oak, Eastleigh, SO50 7HD

Sheet Name: Existing Demolitions and Removals
Drawing Stage : Construction
Purpose of issue: Construction

Date: 29.02.24
Checked by: GJL

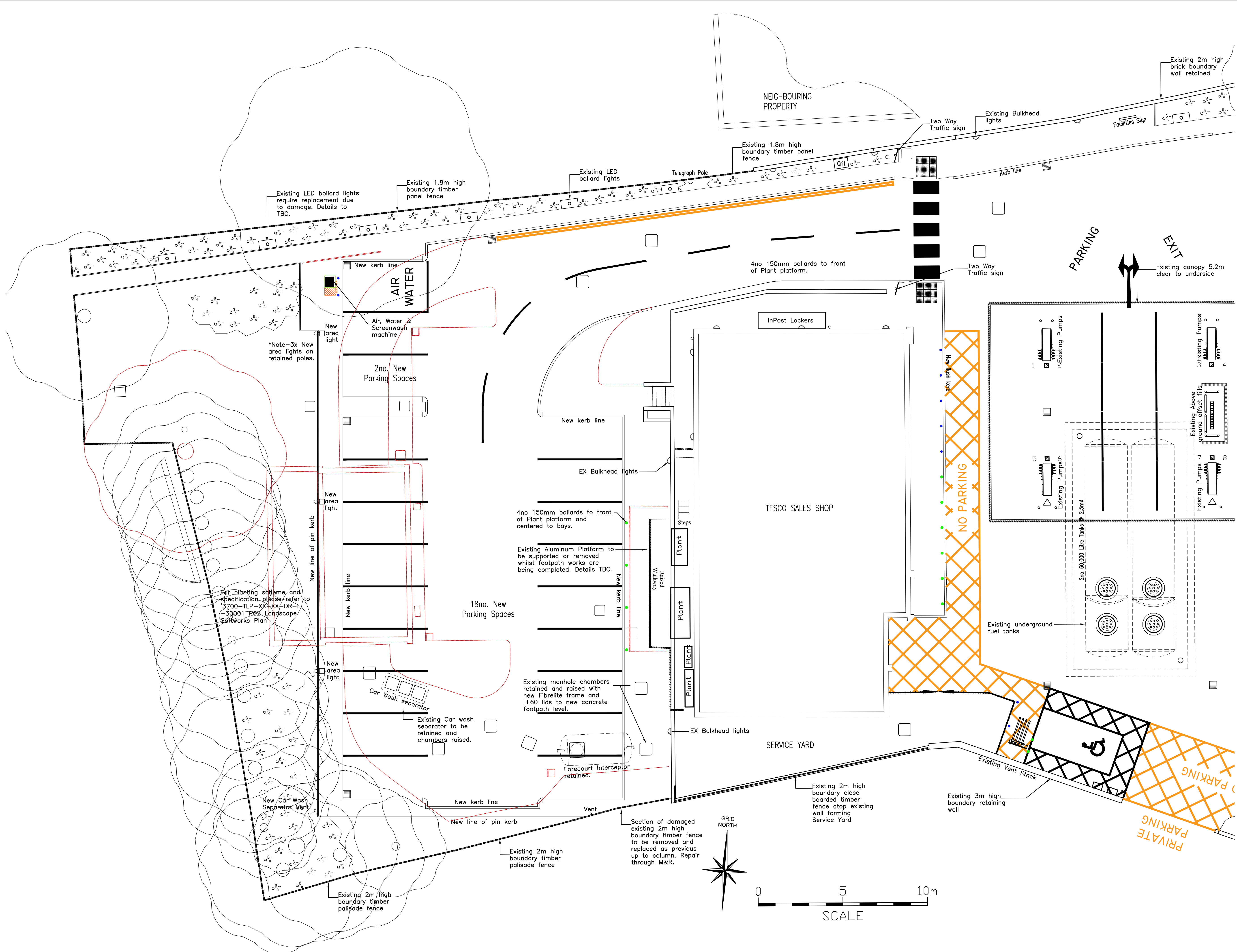
Drawn by: GL
Scale @ A1: 1:100

Project No: 8371
ESSO pbl No: 200932
Drawing No :

Revision: /
015C (CWR)



ARCHITECTS BUILDING CONSULTANTS INTERIORS



Revision	Date	By	Chk
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All dimensions to be verified on site, and the Architect informed of any discrepancy. All drawings and specifications should be read in conjunction with the Health and Safety Plan; all conflicts should be reported to the appointed Principal Designer.



Esso Petroleum Company Limited
Fair Oak Express
Winchester Road, Fair Oak, Eastleigh, SO50 7HD

Sheet Name: Proposed General Arrangement
Drawing Stage : Construction
Purpose of issue: Construction

Date: 29.02.24

checked by: GJL

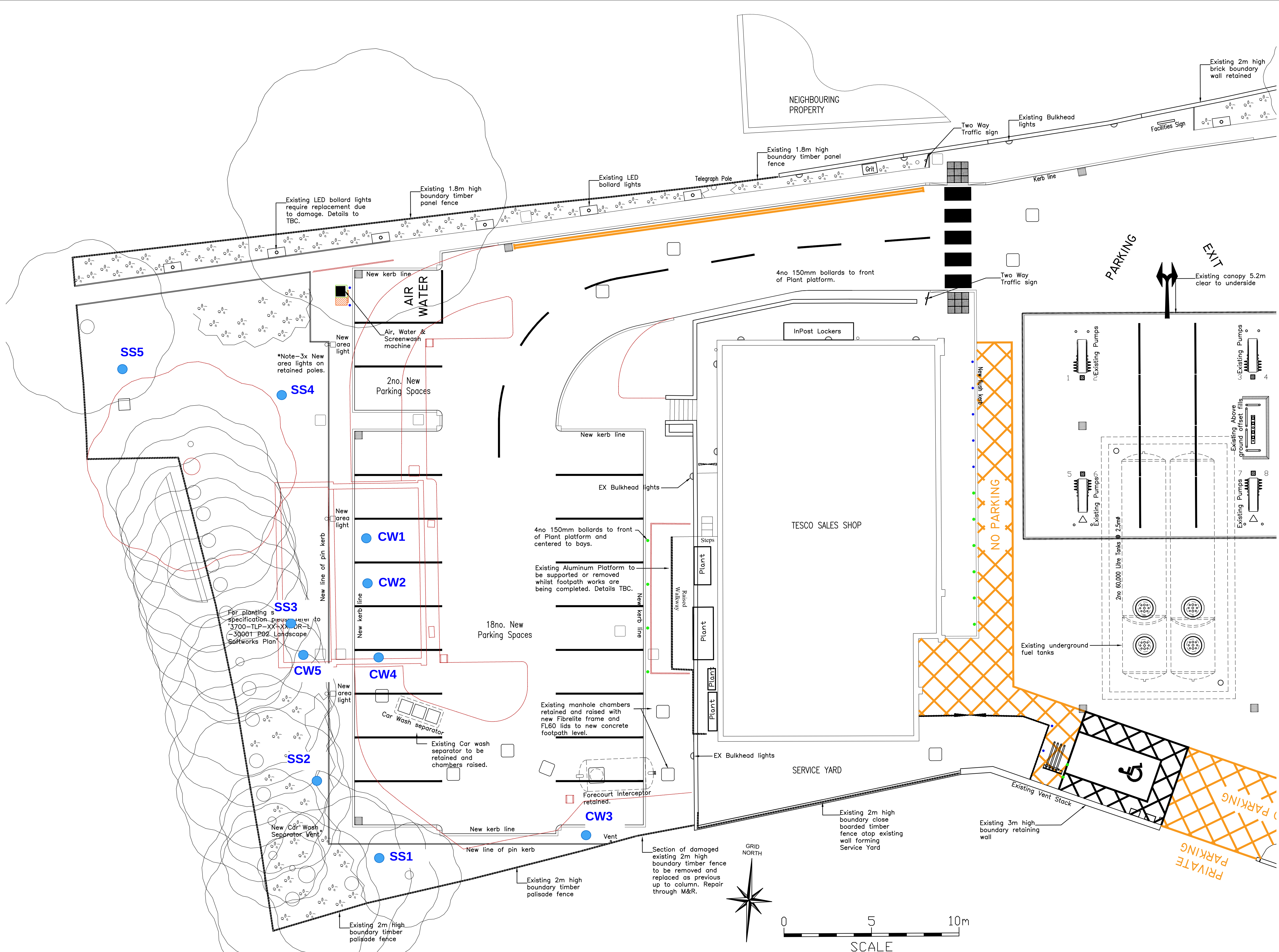
Drawn by: GL

Scale @ A1: 1:100

Project No: 8371
 ESSO pbl No: 200932
 Drawing No :

020C (CWR)





Revision	Date	By	Chk
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All dimensions to be verified on site, and the Architect informed of any discrepancy. All drawings and specifications should be read in conjunction with the Health and Safety Plan; all conflicts should be reported to the appointed Principal Designer.



Esso Petroleum Company Limited
Fair Oak Express
Winchester Road, Fair Oak, Eastleigh, SO50 7HD

Sheet Name: Proposed General Arrangement
Drawing Stage : Construction
Purpose of issue: Construction

Date: 29.02.24

checked by: GJL

Drawn by: GL

Scale @ A1: 1:100

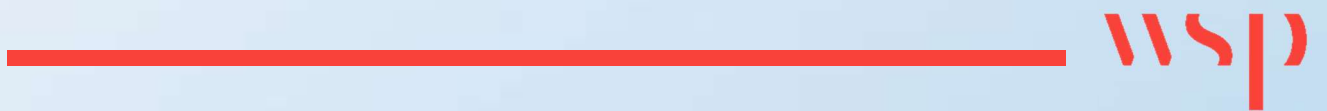
Project No: 8371
 ESSO pbl No: 200932
 Drawing No :

Revision: /
020C (CWR)



Appendix B

DECISION NOTICE



MR COLIN RUDDOCK
BOWMAN RILEY ARCHITECTS
WELLINGTON HOUSE
OTLEY STREET
SKIPTON
BD23 1EL

Application	F/23/95964
Please ask for	Summer Sharpe
Direct dial	023 8068 8841
Working hours	Mon to Fri 8:30am to 5pm
Email	summer.sharpe@eastleigh.gov.uk

Thursday 30 November 2023

Town and Country Planning Act 1990
The Town and Country Planning (Development Management Procedure) (England)
Order 2015

Application No. F/23/95964

In pursuance of their powers under the above Act and in accordance with your application received on Monday 11 September 2023 the Council, as Local Planning Authority hereby **Permit** the following :

Description: Removal of car wash including building, plant room enclosure and works to associated access roads to provide additional customer parking. Retrospection relocation of fuel tanks.

Site: SERVICE STATION, WINCHESTER ROAD, FAIR OAK, EASTLEIGH, SO50 7HD

Subject to due compliance with the following conditions:

- 1 The development hereby permitted, that has yet to commence, shall start no later than three years from the date of this decision.

Reason: To comply with Section 91 of the Town and Country Planning Act 1990.

- 2 The development hereby permitted shall be implemented in accordance with the following plans numbered:
 - Proposed Car Park Alterations SITE LOCATION PLAN 23-001P
 - Existing Site Layout 2023-010P
 - Proposed Surface Finishes 2023-070P

- Proposed Site Layout 2023-020P
- Proposed Site Elevations 2023-031P
- Existing Site Elevations 2023-030P

Reason: For the avoidance of doubt and in the interests of proper planning.

- 3 Prior to commencement of the remainder of the development hereby permitted, a landscaping scheme shall be submitted to and approved in writing by the Local Planning Authority. The scheme shall cover all hard & soft landscaping [including any boundary treatments] and shall provide details of timings for all landscaping and any future maintenance. The works shall be carried out in accordance with the approved plans and to the appropriate British Standard, and maintenance thereafter. For a period of 5 years after planting, any trees or plants which are removed, die or become seriously damaged or defective, shall be replaced as soon as is reasonably practicable with others of the same species, size and number as originally approved in the landscaping scheme.

Reason: In the interests of the visual amenity of the locality and to safeguard the amenities of neighbouring residents.

4

A contaminated land watching brief shall be followed at all times during demolition/ construction works and confirmation of this shall be submitted to the Local Planning Authority prior to first use of the approved car park. The watching brief shall cover the following details:

- a) the car wash demolition
- b) the removal of existing foundations
- c) the installation of new below ground drainage runs (if/ where necessary)

In the event that previously unidentified contamination is found during the watching brief it must be immediately reported to the Local Planning Authority. Work shall then cease until an investigation and risk assessment, and where required a remediation scheme, has been submitted to and approved in writing by the Local Planning Authority. Where a remediation scheme is required by the Local Planning Authority, the development shall not be brought into use until a verification report for the remediation work has been submitted to and approved in writing by the Local Planning Authority. All works shall be undertaken by a competent person in accordance with best practice as outlined in BS10175:2011+A2:2017 and LCRM. Any gas monitoring deemed appropriate is to be in accordance with best practice as outlined in such documents as BS8576:2013, BS 8485:2015+A1:2019, Claire RB17 and CIRIA C665.

Reason: To minimise the risk from land contamination for the safety of the site users.

- 5 Note to Applicant: In accordance with paragraph 38 of the National Planning Policy Framework (September 2023), Eastleigh Borough Council takes a positive approach to the handling of development proposals so as to achieve, whenever possible, a positive outcome and to ensure all proposals are dealt with in a timely manner.

Yours faithfully

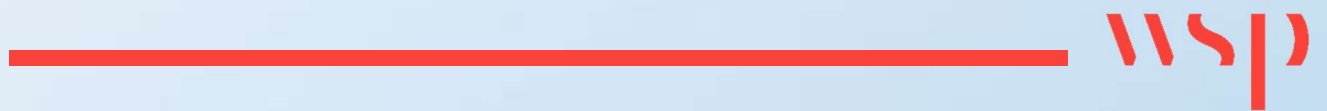
A handwritten signature in black ink that reads "N. Parker". The signature is written in a cursive style with a horizontal line underneath the name.

Nicholas Parker
Planning Manager

N.B. See Attached Notes

Appendix C

PHOTOGRAPHIC RECORD



PHOTOGRAPHIC RECORD

Fair Oak Express – Car Wash Investigation



Photo 1

View of excavation under the footprint of former car wash. Location of CW1 and CW2



Photo 2

View of excavation under the footprint of former car wash. Location of CW1 and CW2

PHOTOGRAPHIC RECORD

Fair Oak Express – Car Wash Investigation



Photo 3

Location of CW3 in the south of the site adjacent to forecourt interceptor



Photo 4

Location of CW4 north of car wash separator, south of former car wash

PHOTOGRAPHIC RECORD

Fair Oak Express – Car Wash Investigation

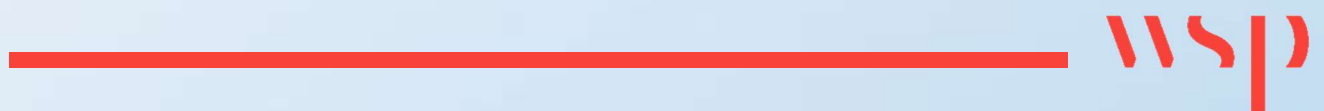


Photo 5

Location of CW5 in the west of the site in the southwest of the former car wash

Appendix D

SOIL SCREENING ASSESSMENT



Esso Tesco Fair Oak Express Car Wash



Commercial, SOM=1%

Site Area(s) Selected: NONE,Whole site
Phase(s): All phases, N/A

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

Aliphatics and Aromatics

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
Aliphatic C05-C06	-	-	-	0.0000	-	0.0000	3,190	mg/kg	10	10	0	0	
Aliphatic C05-C10	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	2	0	
Aliphatic C06-C08	-	-	-	0.0000	-	0.0000	7,780	mg/kg	10	10	2	0	
Aliphatic C08-C10	-	-	-	0.0000	-	0.0000	2,000	mg/kg	10	10	2	0	
Aliphatic C10-C12	-	-	-	0.0000	-	0.0000	9,690	mg/kg	10	10	0	0	
Aliphatic C10-C44	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	5	0	
Aliphatic C12-C16	-	-	-	0.0000	-	0.0000	58,800	mg/kg	10	10	0	0	
Aliphatic C16-C21	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	5	0	
Aliphatic C21-C35	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	6	0	
Aliphatic C35-C44	-	-	-	0.0000	-	0.0000	1,910,000	mg/kg	10	10	5	0	
Aromatic C05-C10	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	1	0	
Aromatic C06-C07	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Aromatic C07-C08	-	-	-	0.0000	-	0.0000	56,100	mg/kg	10	10	0	0	
Aromatic C08-C10	-	-	-	0.0000	-	0.0000	3,460	mg/kg	10	10	2	0	
Aromatic C10-C12	-	-	-	0.0000	-	0.0000	16,200	mg/kg	10	10	0	0	
Aromatic C12-C16	-	-	-	0.0000	-	0.0000	36,200	mg/kg	10	10	5	0	

Esso Tesco Fair OaK Express Car Wash



Commercial, SOM=1%

Site Area(s) Selected: NONE,Whole site
Phase(s): All phases, N/A

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

Aliphatics and Aromatics

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
Aromatic C16-C21	-	-	-	0.0000	-	0.0000	28,600	mg/kg	10	10	6	0	
Aromatic C21-C35	-	-	-	0.0000	-	0.0000	28,600	mg/kg	10	10	7	0	
Aromatic C35-C44	-	-	-	0.0000	-	0.0000	28,600	mg/kg	10	10	5	0	
Aromatic C40-C44	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	5	0	
Aromatics C10-C44	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	5	0	
Total Aliphatics and Aromatics (C05-C44)	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	5	0	
Total Aliphatics and Aromatics (C10-C44)	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	5	0	
TPH Hazard Index	-	-	-	0.0000	-	0.0000	1.00	mg/kg	10	10	N/A	0	

Esso Tesco Fair OaK Express Car Wash



Commercial, SOM=1%

Site Area(s) Selected: NONE,Whole site
Phase(s): All phases, N/A

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

Alkali and Alkaline Earth Metals													
ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
Barium	-	-	-	0.0000	-	0.0000	22,100	mg/kg	10	10	10	0	
Beryllium	-	-	-	0.0000	-	0.0000	12.0	mg/kg	10	10	10	0	

Esso Tesco Fair Oak Express Car Wash



Commercial, SOM=1%

Site Area(s) Selected: NONE, Whole site
Phase(s): All phases, N/A

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

BTEX and Fuel Additives

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
1,2,4-Trimethylbenzene	-	-	-	0.0000	-	0.0000	611	mg/kg	10	10	0	0	
1,3,5-Trimethylbenzene	-	-	-	0.0000	-	0.0000	611	mg/kg	10	10	0	0	
Benzene	-	-	-	0.0000	-	0.0000	27.0	mg/kg	10	10	0	0	
BTEX	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Ethylbenzene	-	-	-	0.0000	-	0.0000	5,710	mg/kg	10	10	0	0	
Methyl t-butylether (MTBE)	-	-	-	0.0000	-	0.0000	7,480	mg/kg	10	10	0	0	
TAME	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Toluene	-	-	-	0.0000	-	0.0000	56,300	mg/kg	10	10	0	0	
Xylene	-	-	-	0.0000	-	0.0000	5,920	mg/kg	10	10	0	0	
Xylene - Total (Summed)	-	-	-	0.0000	-	0.0000	5,920	mg/kg	10	10	10	0	
Xylene-m & p	-	-	-	0.0000	-	0.0000	5,920	mg/kg	10	10	0	0	
Xylene-o	-	-	-	0.0000	-	0.0000	5,920	mg/kg	10	10	0	0	

Esso Tesco Fair Oak Express Car Wash



Commercial, SOM=1%

Site Area(s) Selected: NONE,Whole site
Phase(s): All phases, N/A

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

Chlorinated Aliphatics

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
1,1,1,2-Tetrachloroethane	-	-	-	0.0000	-	0.0000	108	mg/kg	10	10	0	0	
1,1,1-Trichloroethane	-	-	-	0.0000	-	0.0000	1,580	mg/kg	10	10	0	0	
1,1,2,2-Tetrachloroethane	-	-	-	0.0000	-	0.0000	274	mg/kg	10	10	0	0	
1,1,2-Trichloroethane	-	-	-	0.0000	-	0.0000	89.0	mg/kg	10	10	0	0	
1,1-Dichloroethane	-	-	-	0.0000	-	0.0000	263	mg/kg	10	10	0	0	
1,1-Dichloroethene	-	-	-	0.0000	-	0.0000	24.0	mg/kg	10	10	0	0	
1,1-Dichloropropene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
1,2,3-Trichloropropane	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
1,2-Dichloroethane	-	-	-	0.0000	-	0.0000	0.67	mg/kg	10	10	0	0	
1,2-Dichloropropane	-	-	-	0.0000	-	0.0000	3.10	mg/kg	10	10	0	0	
1,3-Dichloropropane	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
2,2-Dichloropropane	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Carbon tetrachloride	-	-	-	0.0000	-	0.0000	31.0	mg/kg	10	10	0	0	
Chloroethane	-	-	-	0.0000	-	0.0000	904	mg/kg	10	10	0	0	
Chloroform	-	-	-	0.0000	-	0.0000	99.0	mg/kg	10	10	0	0	
Chloromethane	-	-	-	0.0000	-	0.0000	0.96	mg/kg	10	10	0	0	

Esso Tesco Fair Oak Express Car Wash



Commercial, SOM=1%

Site Area(s) Selected: NONE, Whole site
Phase(s): All phases, N/A

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

Chlorinated Aliphatics

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
Cis 1,2-Dichloroethene	-	-	-	0.0000	-	0.0000	14.0	mg/kg	10	10	0	0	
Cis 1,3-Dichloropropene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Dichloromethane	-	-	-	0.0000	-	0.0000	257	mg/kg	10	10	0	0	
Hexachlorobutadiene	-	-	-	0.0000	-	0.0000	31.0	mg/kg	10	10	0	0	
Hexachloroethane	-	-	-	0.0000	-	0.0000	21.0	mg/kg	10	10	0	0	
PCE	-	-	-	0.0000	-	0.0000	19.0	mg/kg	10	10	0	0	
Trans-1,2-Dichloroethene	-	-	-	0.0000	-	0.0000	21.0	mg/kg	10	10	0	0	
Trans-1,3-Dichloropropene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Trichloroethene (TCE)	-	-	-	0.0000	-	0.0000	1.20	mg/kg	10	10	0	0	
Vinyl chloride	-	-	-	0.0000	-	0.0000	0.059	mg/kg	10	10	0	0	

Esso Tesco Fair Oak Express Car Wash



Commercial, SOM=1%

Site Area(s) Selected: NONE, Whole site
Phase(s): All phases, N/A

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

Chlorinated Aromatics

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
1,2,3-Trichlorobenzene	-	-	-	0.0000	-	0.0000	102	mg/kg	10	10	0	0	
1,2,4-Trichlorobenzene	-	-	-	0.0000	-	0.0000	265	mg/kg	10	10	0	0	
1,2-Dichlorobenzene	-	-	-	0.0000	-	0.0000	2,020	mg/kg	10	10	0	0	
1,3,5-Trichlorobenzene	-	-	-	0.0000	-	0.0000	22.0	mg/kg	10	10	0	0	
1,3-Dichlorobenzene	-	-	-	0.0000	-	0.0000	30.0	mg/kg	10	10	0	0	
1,4-Dichlorobenzene	-	-	-	0.0000	-	0.0000	584	mg/kg	10	10	0	0	
2-Chlorotoluene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
4-Chlorotoluene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Chlorobenzene	-	-	-	0.0000	-	0.0000	58.0	mg/kg	10	10	0	0	
Hexachlorobenzene	-	-	-	0.0000	-	0.0000	105	mg/kg	10	10	0	0	

Esso Tesco Fair Oak Express Car Wash



Commercial, SOM=1%

Site Area(s) Selected: NONE,Whole site

Phase(s): All phases, N/A

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

Chlorinated Phenols

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
2,4,5-Trichlorophenol	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
2,4,6-Trichlorophenol	-	-	-	0.0000	-	0.0000	2,700	mg/kg	10	10	0	0	
2,4-Dichlorophenol	-	-	-	0.0000	-	0.0000	2,700	mg/kg	10	10	0	0	
2-Chlorophenol	-	-	-	0.0000	-	0.0000	2,700	mg/kg	10	10	0	0	
4-Chloro-3-Methylphenol	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Chlorophenols - Total (Summed Isomers)	-	-	-	0.0000	-	0.0000	2,700	mg/kg	10	10	10	0	

Dioxins and Furans

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
Dibenzofuran	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	

Esso Tesco Fair Oak Express Car Wash



Commercial, SOM=1%

Site Area(s) Selected: NONE,Whole site

Phase(s): All phases, N/A

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

Dyes

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
3-Nitroaniline	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
4-Nitroaniline	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	

Explosives

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
2,4-Dinitrotoluene	-	-	-	0.0000	-	0.0000	3,720	mg/kg	10	10	0	0	
2,6-Dinitrotoluene	-	-	-	0.0000	-	0.0000	1,850	mg/kg	10	10	0	0	

Esso Tesco Fair Oak Express Car Wash



Commercial, SOM=1%

Site Area(s) Selected: NONE, Whole site
Phase(s): All phases, N/A

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

Halogenated Hydrocarbons

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
1,2-Dibromo-3-Chloropropane	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
1,2-Dibromoethane	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Bromobenzene	-	-	-	0.0000	-	0.0000	91.0	mg/kg	10	10	0	0	
Bromochloromethane	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Bromodichloromethane	-	-	-	0.0000	-	0.0000	2.00	mg/kg	10	10	0	0	
Bromoform	-	-	-	0.0000	-	0.0000	714	mg/kg	10	10	0	0	
Bromomethane	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Dibromochloromethane	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Dibromomethane	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Dichlorodifluoromethane	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Trichlorofluoromethane	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	

Esso Tesco Fair OaK Express Car Wash



Commercial, SOM=1%

Site Area(s) Selected: NONE,Whole site
Phase(s): All phases, N/A

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

Ketones													
ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
Isophorone	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	

Esso Tesco Fair Oak Express Car Wash



Commercial, SOM=1%

Site Area(s) Selected: NONE, Whole site

Phase(s): All phases, N/A

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

Metals

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
Arsenic	-	-	-	0.0000	-	0.0000	635	mg/kg	10	10	10	0	
Boron	-	-	-	0.0000	-	0.0000	207,000	mg/kg	10	10	5	0	
Cadmium	-	-	-	0.0000	-	0.0000	223	mg/kg	10	10	6	0	
Chromium	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	10	0	
Copper	-	-	-	0.0000	-	0.0000	69,800	mg/kg	10	10	10	0	
Hexavalent Chromium	-	-	-	0.0000	-	0.0000	24.0	mg/kg	10	10	0	0	
Lead	-	-	-	0.0000	-	0.0000	1,390	mg/kg	10	10	10	0	
Mercury	-	-	-	0.0000	-	0.0000	1,110	mg/kg	10	10	0	0	
Nickel	-	-	-	0.0000	-	0.0000	1,710	mg/kg	10	10	10	0	
Selenium	-	-	-	0.0000	-	0.0000	12,300	mg/kg	10	10	0	0	
Vanadium	-	-	-	0.0000	-	0.0000	9,220	mg/kg	10	10	10	0	
Zinc	-	-	-	0.0000	-	0.0000	1,050,000	mg/kg	10	10	10	0	

Esso Tesco Fair Oak Express Car Wash



Commercial, SOM=1%

Site Area(s) Selected: NONE,Whole site
Phase(s): All phases, N/A

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

Other

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
Total organic carbon (TOC)	-	-	-	0.0000	-	0.0000	-	%	10	10	9	0	
2-Chloronaphthalene	-	-	-	0.0000	-	0.0000	370	mg/kg	10	10	0	0	
4-Bromophenylphenyl ether	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
4-Chloroaniline	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
4-Chlorophenyl phenyl ether	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Azobenzene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Bis (2-chloroethoxy) methane	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Bis (2-chloroethyl) ether	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Bis (2-chloroisopropyl) ether	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Carbazole	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Carbon Disulphide	-	-	-	0.0000	-	0.0000	11.0	mg/kg	10	10	0	0	
Nitrobenzene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
n-Nitrosodi-n-Propylamine	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Styrene	-	-	-	0.0000	-	0.0000	3,170	mg/kg	10	10	0	0	

Esso Tesco Fair Oak Express Car Wash



Commercial, SOM=1%

Site Area(s) Selected: NONE,Whole site
Phase(s): All phases, N/A

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

PAHs

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
2-Methylnaphthalene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Acenaphthene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	2	0	
Acenaphthylene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	2	0	
Anthracene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	3	0	
Benzo (a) anthracene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	6	0	
Benzo (a) pyrene	-	-	-	0.0000	-	0.0000	38.0	mg/kg	10	10	6	0	
Benzo (b) fluoranthene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	6	0	
Benzo (ghi) perylene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	5	0	
Benzo (k) fluoranthene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	5	0	
Chrysene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	6	0	
Dibenzo (ah) anthracene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	2	0	
Fluoranthene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	6	0	
Fluorene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	2	0	
Indeno (1,2,3-cd) pyrene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	6	0	
Naphthalene	-	-	-	0.0000	-	0.0000	193	mg/kg	10	10	1	0	
PAH Total (EPA 16)	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	6	0	

Esso Tesco Fair OaK Express Car Wash



Commercial, SOM=1%

Site Area(s) Selected: NONE,Whole site
Phase(s): All phases, N/A

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

PAHs

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS >AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
Phenanthrene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	5	0	
Pyrene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	6	0	

Pesticides, Herbicides and Insecticides

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS >AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
Hexachlorocyclopentadiene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Pentachlorophenol	-	-	-	0.0000	-	0.0000	406	mg/kg	10	10	0	0	

Esso Tesco Fair Oak Express Car Wash



Commercial, SOM=1%

Site Area(s) Selected: NONE,Whole site

Phase(s): All phases, N/A

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

Pharmaceuticals

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
2-Nitroaniline	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	

Phenols

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
2,4-Dimethylphenol	-	-	-	0.0000	-	0.0000	15,700	mg/kg	10	10	0	0	
2-Methylphenol (o-Cresol)	-	-	-	0.0000	-	0.0000	160,000	mg/kg	10	10	0	0	
2-Nitrophenol	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
4-Methylphenol	-	-	-	0.0000	-	0.0000	160,000	mg/kg	10	10	0	0	
4-Nitrophenol	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Methylphenols Total (Summed)	-	-	-	0.0000	-	0.0000	160,000	mg/kg	10	10	10	0	
Phenol	-	-	-	0.0000	-	0.0000	760	mg/kg	10	10	0	0	

Esso Tesco Fair OaK Express Car Wash



Commercial, SOM=1%

Site Area(s) Selected: NONE,Whole site
Phase(s): All phases, N/A

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

Phthalates

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
Bis (2-ethylhexyl) phthalate	-	-	-	0.0000	-	0.0000	85,200	mg/kg	10	10	0	0	
Butyl benzyl phthalate	-	-	-	0.0000	-	0.0000	940,000	mg/kg	10	10	0	0	
Diethyl phthalate	-	-	-	0.0000	-	0.0000	144,000	mg/kg	10	10	0	0	
Dimethyl phthalate	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Di-n-butyl phthalate	-	-	-	0.0000	-	0.0000	15,400	mg/kg	10	10	0	0	
Di-n-octyl phthalate	-	-	-	0.0000	-	0.0000	89,100	mg/kg	10	10	0	0	

Esso Tesco Fair OaK Express Car Wash



Commercial, SOM=1%

Site Area(s) Selected: NONE,Whole site

Phase(s): All phases, N/A

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

QA Standard

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
4-Bromofluorobenzene	-	-	-	0.0000	-	0.0000	-	%	10	10	10	0	
Acenaphthene-d10	-	-	-	0.0000	-	0.0000	-	%	10	10	10	0	
Chrysene-d12	-	-	-	0.0000	-	0.0000	-	%	10	10	10	0	
Dibromofluoromethane	-	-	-	0.0000	-	0.0000	-	%	10	10	10	0	
Naphthalene-d8	-	-	-	0.0000	-	0.0000	-	%	10	10	10	0	
Perylene-d12**	-	-	-	0.0000	-	0.0000	-	%	10	10	10	0	
Phenanthrene-d10 IS	-	-	-	0.0000	-	0.0000	-	%	10	10	10	0	
Toluene-d8 Surrogate	-	-	-	0.0000	-	0.0000	-	%	10	10	10	0	

Esso Tesco Fair Oak Express Car Wash



Commercial, SOM=1%

Site Area(s) Selected: NONE,Whole site

Phase(s): All phases, N/A

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

TPH/EPH

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
GRO Surrogate	-	-	-	0.0000	-	0.0000	-	%	10	10	10	0	
PRO (>C5-C10)	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	2	0	

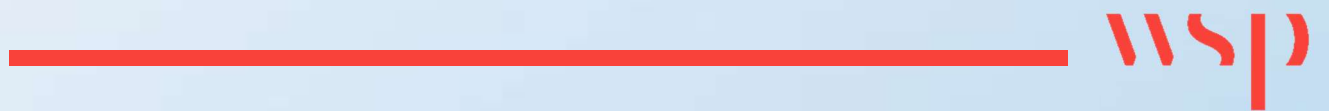
VOCs

ANALYTE	MADEGROUND			NATURAL GROUND			ASSESSMENT CRITERIA (AC)	UNITS	NO. OF LOCATIONS	NO. OF SAMPLES	NO. OF SAMPLES > LOD	NO. OF LOCATIONS > AC	LOCATIONS FAILING SCREENING
	MIN	MEAN*	MAX	MIN	MEAN*	MAX							
4-Isopropyltoluene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
iso-Propylbenzene	-	-	-	0.0000	-	0.0000	1,300	mg/kg	10	10	0	0	
n-Butylbenzene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
n-Propylbenzene	-	-	-	0.0000	-	0.0000	3,860	mg/kg	10	10	0	0	
Sec-Butylbenzene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	
Tert-Butylbenzene	-	-	-	0.0000	-	0.0000	-	mg/kg	10	10	0	0	

THERE WERE NO EXCEEDANCES OF Commercial, SOM=1%

Appendix E

LABORATORY CERTIFICATES





WSP UK Limited
8 First Street
Main
Lancashire
M15 4RP

Attention: Rhys Evans

Units 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

CERTIFICATE OF ANALYSIS

Date of report Generation:	21 May 2024
Customer:	WSP UK Limited
Sample Delivery Group (SDG):	240514-35
Your Reference:	Fair Oak Express
Location:	Fair Oak Express
Report No:	729318
Order Number:	70113388-GW2

We received 2 samples on Tuesday May 14, 2024 and 2 of these samples were scheduled for analysis which was completed on Tuesday May 21, 2024. 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.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.

Incorrect sampling dates and/or sample information will affect the validity of results.

The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Sonia McWhan

Operations Manager



1291



CERTIFICATE OF ANALYSIS

Validated

SDG: 240514-35
Client Ref.: Fair Oak Express

Report Number: 729318
Location: Fair Oak Express

Superseded Report:

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
29786792	CW1	ES1	2.50 - 3.00	05/10/2024
29786795	CW2	ES2	2.50 - 3.00	05/10/2024

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



CERTIFICATE OF ANALYSIS

Validated

SDG: 240514-35
Client Ref.: Fair Oak Express

Report Number: 729318
Location: Fair Oak Express

Superseded Report:

Results Legend Test No Determination Possible Sample Types - S - Soil/Solid UNS - Unspecified Solid GW - Ground Water SW - Surface Water LE - Land Leachate PL - Prepared Leachate PR - Process Water SA - Saline Water TE - Trade Effluent TS - Treated Sewage US - Untreated Sewage RE - Recreational Water DW - Drinking Water Non-regulatory UNL - Unspecified Liquid SL - Sludge G - Gas OTH - Other	Lab Sample No(s)		29786792	29786795
	Customer Sample Reference		CW1	CW2
	AGS Reference		ES1	ES2
	Depth (m)		2.50 - 3.00	2.50 - 3.00
	Container		1kg TUB with Handle (ALE210)	250g Amber Jar (ALE210)
	Sample Type		S	S
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 2		
Boron Water Soluble	All	NDPs: 0 Tests: 2		
EPH CWG GC (S)	All	NDPs: 0 Tests: 2		
GRO by GC-FID (S)	All	NDPs: 0 Tests: 2		
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 2		
Metals in solid samples by OES	All	NDPs: 0 Tests: 2		
PAH by GCMS	All	NDPs: 0 Tests: 2		
Sample description	All	NDPs: 0 Tests: 2		
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 2		
Total Organic Carbon	All	NDPs: 0 Tests: 2		
TPH CWG GC (S)	All	NDPs: 0 Tests: 2		
VOC MS (S)	All	NDPs: 0 Tests: 2		



CERTIFICATE OF ANALYSIS

Validated

SDG: 240514-35
Client Ref.: Fair Oak Express

Report Number: 729318
Location: Fair Oak Express

Superseded Report:

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm
-----------	----------	------	-----------------	--------	-------------	--------	------------	-------------	-------

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
29786792	CW1	2.50 - 3.00	Light Brown	Sandy Clay Loam	Stones	None
29786795	CW2	2.50 - 3.00	Light Brown	Sandy Loam	None	None

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

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 materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

SDG: 240514-35

Report Number: 729318

Superseded Report:

Client Ref.: Fair Oak Express

Location: Fair Oak Express

[illegible]

SDG: 240514-35

Client Ref.: Fair Oak Express

PAH by GCMS

[illegible]



CERTIFICATE OF ANALYSIS

Validated

SDG: 240514-35
Client Ref.: Fair Oak Express

Report Number: 729318
Location: Fair Oak Express

Superseded Report:

Semi Volatile Organic Compounds

Results Legend		Customer Sample Ref.	CW1	CW2			
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference					
M	mCERTS accredited.						
aq	Aqueous / settled sample.						
diss,filtr	Dissolved / filtered sample.						
tot.unfilt	Total / unfiltered sample.						
*	Subcontracted - refer to subcontractor report for accreditation status.						
**	% 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						
1-4.5.6	Sample deviation (see appendix)						
Component	LOD/Units	Method					
Phenol	<0.1 mg/kg	TM157	<0.1	<0.1			
Pentachlorophenol	<0.1 mg/kg	TM157	<1	<1			
n-Nitroso-n-dipropylamine	<0.1 mg/kg	TM157	<0.1	<0.1			
Nitrobenzene	<0.1 mg/kg	TM157	<0.1	<0.1			
Isophorone	<0.1 mg/kg	TM157	<0.1	<0.1			
Hexachloroethane	<0.1 mg/kg	TM157	<0.1	<0.1			
Hexachlorocyclopentadiene	<0.1 mg/kg	TM157	<0.1	<0.1			
Hexachlorobutadiene	<0.1 mg/kg	TM157	<0.1	<0.1			
Hexachlorobenzene	<0.1 mg/kg	TM157	<0.1	<0.1			
n-Dioctyl phthalate	<0.1 mg/kg	TM157	<0.1	<0.1			
Dimethyl phthalate	<0.1 mg/kg	TM157	<0.1	<0.1			
Diethyl phthalate	<0.1 mg/kg	TM157	<0.1	<0.1			
n-Dibutyl phthalate	<0.1 mg/kg	TM157	<0.1	<0.1			
Dibenzofuran	<0.1 mg/kg	TM157	<0.1	<0.1			
Carbazole	<0.1 mg/kg	TM157	<0.1	<0.1			
Butylbenzyl phthalate	<0.1 mg/kg	TM157	<0.1	<0.1			
bis(2-Ethylhexyl) phthalate	<0.1 mg/kg	TM157	<0.1	<0.1			
bis(2-Chloroethoxy)methane	<0.1 mg/kg	TM157	<0.1	<0.1			
bis(2-Chloroethyl)ether	<0.1 mg/kg	TM157	<0.1	<0.1			
Azobenzene	<0.1 mg/kg	TM157	<0.1	<0.1			
4-Nitrophenol	<0.1 mg/kg	TM157	<1	<1			
4-Nitroaniline	<0.1 mg/kg	TM157	<0.1	<0.1			
4-Methylphenol	<0.1 mg/kg	TM157	<0.1	<0.1			
4-Chlorophenylphenylether	<0.1 mg/kg	TM157	<0.1	<0.1			
4-Chloroaniline	<0.1 mg/kg	TM157	<0.1	<0.1			
4-Chloro-3-methylphenol	<0.1 mg/kg	TM157	<0.1	<0.1			
4-Bromophenylphenylether	<0.1 mg/kg	TM157	<0.1	<0.1			
3-Nitroaniline	<0.1 mg/kg	TM157	<0.1	<0.1			
2-Nitrophenol	<0.1 mg/kg	TM157	<0.1	<0.1			
2-Nitroaniline	<0.1 mg/kg	TM157	<0.1	<0.1			
2-Methylphenol	<0.1 mg/kg	TM157	<0.1	<0.1			
1,2,4-Trichlorobenzene	<0.1 mg/kg	TM157	<0.1	<0.1			



CERTIFICATE OF ANALYSIS

Validated

SDG: 240514-35
Client Ref.: Fair Oak Express

Report Number: 729318
Location: Fair Oak Express

Superseded Report:

Semi Volatile Organic Compounds

Results Legend		Customer Sample Ref.	CW1	CW2			
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference					
M	mCERTS accredited.						
aq	Aqueous / settled sample.						
dis.filt	Dissolved / filtered sample.						
tot.unfilt	Total / unfiltered sample.						
+	Subcontracted - refer to subcontractor report for accreditation status.						
**	% 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						
1-4&6@	Sample deviation (see appendix)						
Component	LOD/Units	Method					
2-Chlorophenol	<0.1 mg/kg	TM157	<0.1	<0.1			
2,6-Dinitrotoluene	<0.1 mg/kg	TM157	<0.1	<0.1			
2,4-Dinitrotoluene	<0.1 mg/kg	TM157	<0.1	<0.1			
2,4-Dimethylphenol	<0.1 mg/kg	TM157	<0.1	<0.1			
2,4-Dichlorophenol	<0.1 mg/kg	TM157	<0.1	<0.1			
2,4,6-Trichlorophenol	<0.1 mg/kg	TM157	<0.1	<0.1			
2,4,5-Trichlorophenol	<0.1 mg/kg	TM157	<0.1	<0.1			
1,4-Dichlorobenzene	<0.1 mg/kg	TM157	<0.1	<0.1			
1,3-Dichlorobenzene	<0.1 mg/kg	TM157	<0.1	<0.1			
1,2-Dichlorobenzene	<0.1 mg/kg	TM157	<0.1	<0.1			
2-Chloronaphthalene	<0.1 mg/kg	TM157	<0.1	<0.1			
2-Methylnaphthalene	<0.1 mg/kg	TM157	<0.1	<0.1			
Acenaphthylene	<0.1 mg/kg	TM157	<0.1	<0.1			
Acenaphthene	<0.1 mg/kg	TM157	<0.1	<0.1			
Anthracene	<0.1 mg/kg	TM157	<0.1	<0.1			
Benzo(a)anthracene	<0.1 mg/kg	TM157	<0.1	<0.1			
Benzo(b)fluoranthene	<0.1 mg/kg	TM157	<0.1	<0.1			
Benzo(k)fluoranthene	<0.1 mg/kg	TM157	<0.1	<0.1			
Benzo(a)pyrene	<0.1 mg/kg	TM157	<0.1	<0.1			
Benzo(g,h,i)perylene	<0.1 mg/kg	TM157	<0.1	<0.1			
Chrysene	<0.1 mg/kg	TM157	<0.1	<0.1			
Fluoranthene	<0.1 mg/kg	TM157	<0.1	<0.1			
Fluorene	<0.1 mg/kg	TM157	<0.1	<0.1			
Indeno(1,2,3-cd)pyrene	<0.1 mg/kg	TM157	<0.1	<0.1			
Phenanthrene	<0.1 mg/kg	TM157	<0.1	<0.1			
Pyrene	<0.1 mg/kg	TM157	<0.1	<0.1			
Naphthalene	<0.1 mg/kg	TM157	<0.1	<0.1			
Dibenzo(a,h)anthracene	<0.1 mg/kg	TM157	<0.1	<0.1			
Bis(2-chloroisopropyl) ether	<0.1 mg/kg	TM157	<0.1	<0.1			

SDG: 240514-35

Report Number: 729318

Superseded Report:

Client Ref.: Fair Oak Express

Location: Fair Oak Express

TPH CWG (S)

[illegible]



CERTIFICATE OF ANALYSIS

Validated

SDG: 240514-35
Client Ref.: Fair Oak ExpressReport Number: 729318
Location: Fair Oak Express

Superseded Report:

VOC MS (S)

Results Legend		Customer Sample Ref.	CW1	CW2				
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	2.50 - 3.00 Soil/Solid (S) 05/10/2024	2.50 - 3.00 Soil/Solid (S) 05/10/2024				
M	mCERTS accredited.							
aq	Aqueous / settled sample.							
diss,filtr	Dissolved / filtered sample.							
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted - refer to subcontractor report for accreditation status.							
**	% 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		14/05/2024 240514-35 29786792 ES1	14/05/2024 240514-35 29786795 ES2				
(F)	Trigger breach confirmed							
1-456	Sample deviation (see appendix)							
Component	LOD/Units	Method						
Dibromofluoromethane**	%	TM116	109 2	107 2				
Toluene-d8**	%	TM116	91.7 2	90.5 2				
4-Bromofluorobenzene**	%	TM116	114 2	117 2				
Dichlorodifluoromethane	<0.0005 mg/kg	TM116	<0.005 2 #	<0.005 2 #				
Chloromethane	<0.002 mg/kg	TM116	<0.02 2 #	<0.02 2 #				
Vinyl Chloride	<0.0005 mg/kg	TM116	<0.005 2 M	<0.005 2 M				
Bromomethane	<0.001 mg/kg	TM116	<0.01 2 M	<0.01 2 M				
Chloroethane	<0.001 mg/kg	TM116	<0.01 2 M	<0.01 2 M				
Trichlorofluoromethane	<0.0005 mg/kg	TM116	<0.005 2 M	<0.005 2 M				
1,1-Dichloroethene	<0.0005 mg/kg	TM116	<0.005 2 #	<0.005 2 #				
Carbon Disulphide	<0.001 mg/kg	TM116	<0.01 2 M	<0.01 2 M				
Dichloromethane	<0.005 mg/kg	TM116	<0.05 2 #	<0.05 2 #				
Methyl Tertiary Butyl Ether	<0.0005 mg/kg	TM116	<0.005 2 M	<0.005 2 M				
trans-1,2-Dichloroethene	<0.001 mg/kg	TM116	<0.01 2 M	<0.01 2 M				
1,1-Dichloroethane	<0.0005 mg/kg	TM116	<0.005 2 M	<0.005 2 M				
cis-1,2-Dichloroethene	<0.0005 mg/kg	TM116	<0.005 2 M	<0.005 2 M				
2,2-Dichloropropane	<0.001 mg/kg	TM116	<0.01 2	<0.01 2				
Bromochloromethane	<0.002 mg/kg	TM116	<0.02 2 M	<0.02 2 M				
Chloroform	<0.003 mg/kg	TM116	<0.03 2 M	<0.03 2 M				
1,1,1-Trichloroethane	<0.0005 mg/kg	TM116	<0.005 2 M	<0.005 2 M				
1,1-Dichloropropene	<0.0005 mg/kg	TM116	<0.005 2 M	<0.005 2 M				
Carbontetrachloride	<0.0005 mg/kg	TM116	<0.005 2 M	<0.005 2 M				
1,2-Dichloroethane	<0.001 mg/kg	TM116	<0.01 2 M	<0.01 2 M				
Benzene	<0.001 mg/kg	TM116	<0.01 2 M	<0.01 2 M				
Trichloroethene	<0.001 mg/kg	TM116	<0.01 2 #	<0.01 2 #				
1,2-Dichloropropane	<0.0005 mg/kg	TM116	<0.005 2 M	<0.005 2 M				
Dibromomethane	<0.001 mg/kg	TM116	<0.01 2 M	<0.01 2 M				
Bromodichloromethane	<0.002 mg/kg	TM116	<0.02 2 M	<0.02 2 M				
cis-1,3-Dichloropropene	<0.0005 mg/kg	TM116	<0.005 2 M	<0.005 2 M				
Toluene	<0.001 mg/kg	TM116	<0.01 2 M	<0.01 2 M				
trans-1,3-Dichloropropene	<0.001 mg/kg	TM116	<0.01 2	<0.01 2				
1,1,2-Trichloroethane	<0.001 mg/kg	TM116	<0.01 2 M	<0.01 2 M				



CERTIFICATE OF ANALYSIS

Validated

SDG: 240514-35
Client Ref.: Fair Oak ExpressReport Number: 729318
Location: Fair Oak Express

Superseded Report:

VOC MS (S)

Results Legend		Customer Sample Ref.	CW1	CW2			
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	2.50 - 3.00 Soil/Solid (S) 05/10/2024	2.50 - 3.00 Soil/Solid (S) 05/10/2024			
M	mCERTS accredited.						
aq	Aqueous / settled sample.						
dis.filt	Dissolved / filtered sample.						
tot.unfilt	Total / unfiltered sample.						
+	Subcontracted - refer to subcontractor report for accreditation status.						
**	% 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		14/05/2024 240514-35 29786792 ES1	14/05/2024 240514-35 29786795 ES2			
(F)	Trigger breach confirmed						
1-4&6@	Sample deviation (see appendix)						
Component	LOD/Units	Method					
1,3-Dichloropropane	<0.001 mg/kg	TM116	<0.01 2 M	<0.01 2 M			
Tetrachloroethene	<0.002 mg/kg	TM116	<0.02 2 M	<0.02 2 M			
Dibromochloromethane	<0.002 mg/kg	TM116	<0.02 2 M	<0.02 2 M			
1,2-Dibromoethane	<0.001 mg/kg	TM116	<0.01 2 M	<0.01 2 M			
Chlorobenzene	<0.002 mg/kg	TM116	<0.02 2 M	<0.02 2 M			
1,1,1,2-Tetrachloroethane	<0.001 mg/kg	TM116	<0.01 2 M	<0.01 2 M			
Ethylbenzene	<0.001 mg/kg	TM116	<0.01 2 M	<0.01 2 M			
p/m-Xylene	<0.002 mg/kg	TM116	<0.02 2 #	<0.02 2 #			
o-Xylene	<0.002 mg/kg	TM116	<0.02 2 M	<0.02 2 M			
Styrene	<0.002 mg/kg	TM116	<0.02 2 #	<0.02 2 #			
Bromoform	<0.002 mg/kg	TM116	<0.044 2 M	<0.042 2 M			
Isopropylbenzene	<0.002 mg/kg	TM116	<0.02 2 #	<0.02 2 #			
1,1,2,2-Tetrachloroethane	<0.002 mg/kg	TM116	<0.02 2 #	<0.02 2 #			
1,2,3-Trichloropropane	<0.002 mg/kg	TM116	<0.02 2 M	<0.02 2 M			
Bromobenzene	<0.002 mg/kg	TM116	<0.02 2 M	<0.02 2 M			
Propylbenzene	<0.002 mg/kg	TM116	<0.02 2 M	<0.02 2 M			
2-Chlorotoluene	<0.003 mg/kg	TM116	<0.03 2 M	<0.03 2 M			
1,3,5-Trimethylbenzene	<0.002 mg/kg	TM116	<0.02 2 M	<0.02 2 M			
4-Chlorotoluene	<0.003 mg/kg	TM116	<0.03 2 M	<0.03 2 M			
tert-Butylbenzene	<0.002 mg/kg	TM116	<0.02 2 #	<0.02 2 #			
1,2,4-Trimethylbenzene	<0.003 mg/kg	TM116	<0.03 2 #	<0.03 2 #			
sec-Butylbenzene	<0.001 mg/kg	TM116	<0.01 2	<0.01 2			
4-Isopropyltoluene	<0.002 mg/kg	TM116	<0.02 2	<0.02 2			
1,3-Dichlorobenzene	<0.005 mg/kg	TM116	<0.05 2 M	<0.05 2 M			
1,4-Dichlorobenzene	<0.005 mg/kg	TM116	<0.05 2 M	<0.05 2 M			
n-Butylbenzene	<0.003 mg/kg	TM116	<0.03 2	<0.03 2			
1,2-Dichlorobenzene	<0.005 mg/kg	TM116	<0.05 2 M	<0.05 2 M			
1,2-Dibromo-3-chloropropane	<0.002 mg/kg	TM116	<0.02 2 M	<0.02 2 M			
Tert-amyl methyl ether	<0.001 mg/kg	TM116	<0.01 2 #	<0.01 2 #			
1,2,4-Trichlorobenzene	<0.007 mg/kg	TM116	<0.07 2	<0.07 2			
Hexachlorobutadiene	<0.004 mg/kg	TM116	<0.04 2	<0.04 2			
Naphthalene	<0.008 mg/kg	TM116	<0.08 2 M	<0.08 2 M			

SDG: 240514-35

Report Number: 729318

Superseded Report:

Client Ref.: Fair Oak Express

Location: Fair Oak Express

VOC MS (S)

[illegible]



CERTIFICATE OF ANALYSIS

Validated

SDG: 240514-35
Client Ref.: Fair Oak Express

Report Number: 729318
Location: Fair Oak Express

Superseded Report:

Asbestos Identification - Solid Samples

Results Legend

ISO17025 accredited.
M mCERTS accredited.
* Subcontracted test.
(F) Trigger breach confirmed
1-5&#\$@ Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Asbestos Actinolite	Asbestos Anthophyllite	Asbestos Tremolite	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Non-Asbestos Fibre
Cust. Sample Ref.	CW1ES1 2.50 - 3.00 SOLID	17/05/2024	Agnieszka Chelmowska	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Depth (m)	05/10/2024 00:00:00										
Sample Type	14/05/2024 05:00:00										
Date Sampled	240514-35										
Date Received	29786792										
SDG	TM048										
Original Sample											
Method Number											
Cust. Sample Ref.	CW2ES2 2.50 - 3.00 SOLID	17/05/2024	Agnieszka Chelmowska	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Depth (m)	05/10/2024 00:00:00										
Sample Type	14/05/2024 05:00:00										
Date Sampled	240514-35										
Date Received	29786795										
SDG	TM048										
Original Sample											
Method Number											



CERTIFICATE OF ANALYSIS

Validated

SDG: 240514-35
Client Ref.: Fair Oak Express

Report Number: 729318
Location: Fair Oak Express

Superseded Report:

Table of Results - Appendix

Method No	Description
TM157	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM414	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID
TM048	Identification of Asbestos in Bulk Material
TM218	The determination of PAH in soil samples by GC-MS
TM222	Determination of Hot Water Soluble Boron in Soils (10:1 Water:Soil) by ICP OES.
PM024	Soil preparation including homogenisation, moisture, screens of soils for Asbestos Containing Material
TM116	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	ELTRA CS800 Operators Guide
TM089	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM151	Determination of Hexavalent Chromium using Kone analyser
TM181	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).



CERTIFICATE OF ANALYSIS

Validated

SDG: 240514-35
Client Ref.: Fair Oak Express

Report Number: 729318
Location: Fair Oak Express

Superseded Report:

Test Completion Dates

Lab Sample No(s)	29786792	29786795
Customer Sample Ref.	CW1	CW2
AGS Ref.	ES1	ES2
Depth	2.50 - 3.00	2.50 - 3.00
Type	Soil/Solid (S)	Soil/Solid (S)

Asbestos ID in Solid Samples	17-May-2024	17-May-2024
Boron Water Soluble	20-May-2024	20-May-2024
EPH CWG GC (S)	20-May-2024	20-May-2024
GRO by GC-FID (S)	20-May-2024	20-May-2024
Hexavalent Chromium (s)	21-May-2024	21-May-2024
Metals in solid samples by OES	20-May-2024	20-May-2024
PAH by GCMS	21-May-2024	21-May-2024
Sample description	16-May-2024	16-May-2024
Semi Volatile Organic Compounds	21-May-2024	21-May-2024
Total Organic Carbon	21-May-2024	21-May-2024
TPH CWG GC (S)	20-May-2024	20-May-2024
VOC MS (S)	17-May-2024	17-May-2024



CERTIFICATE OF ANALYSIS

Validated

SDG: 240514-35
Client Ref.: Fair Oak Express

Report Number: 729318
Location: Fair Oak Express

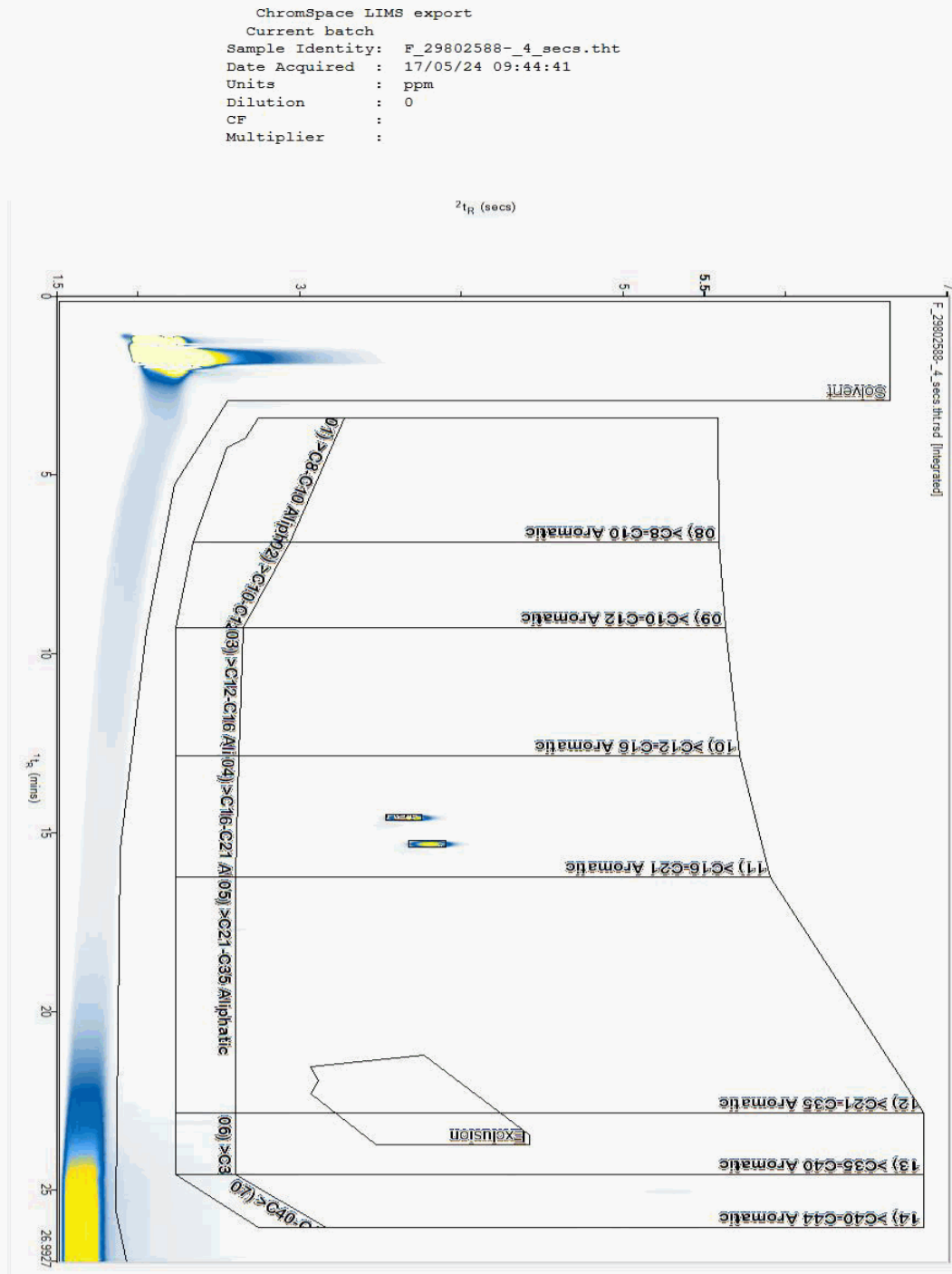
Superseded Report:

Chromatogram

Analysis: EPH CWG GC (S)

Sample No : 29802588
Sample ID : CW2

Depth : 2.50 - 3.00





CERTIFICATE OF ANALYSIS

Validated

SDG: 240514-35
Client Ref.: Fair Oak Express

Report Number: 729318
Location: Fair Oak Express

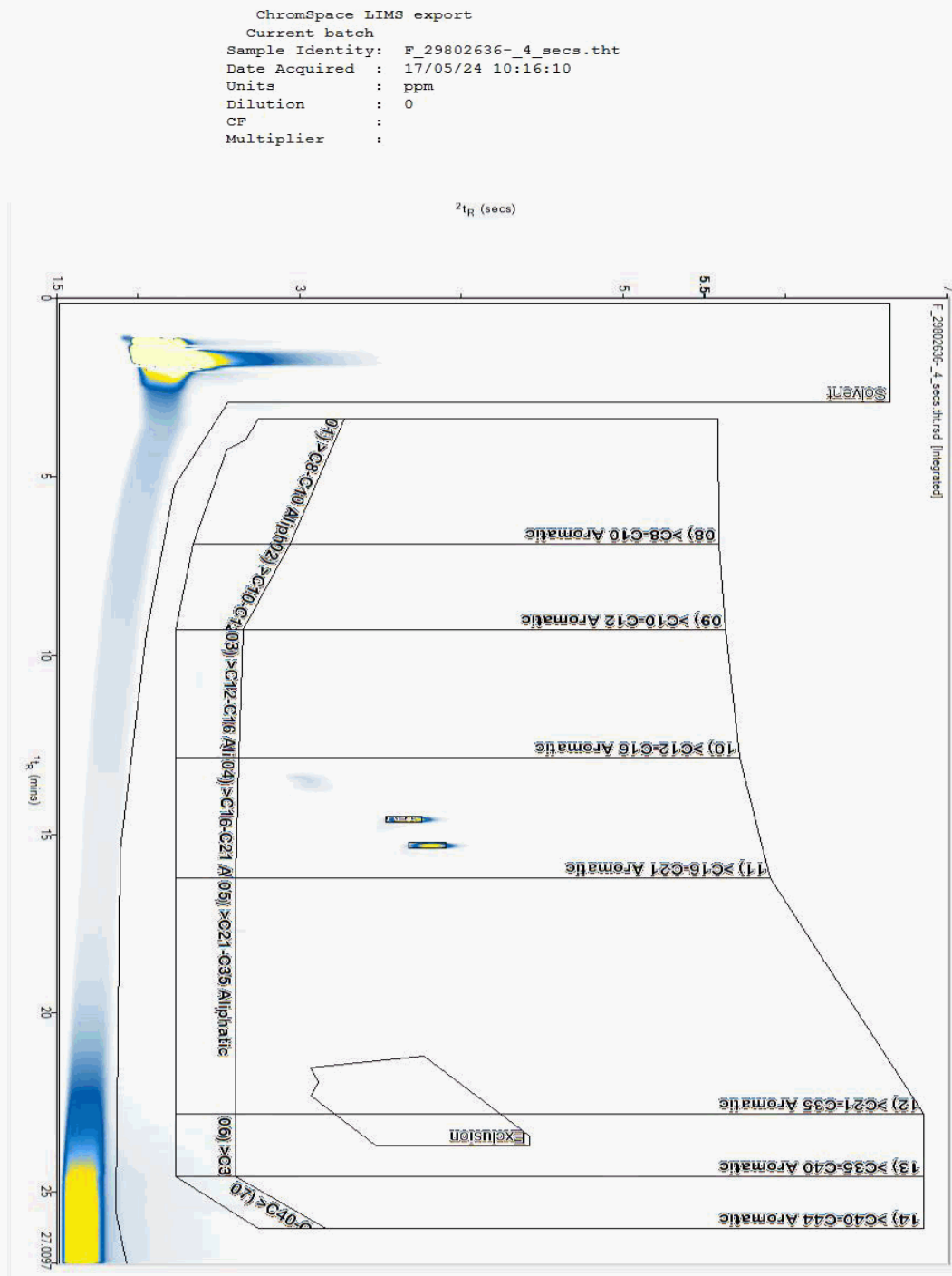
Superseded Report:

Chromatogram

Analysis: EPH CWG GC (S)

Sample No : 29802636
Sample ID : CW1

Depth : 2.50 - 3.00





CERTIFICATE OF ANALYSIS

Validated

SDG: 240514-35
Client Ref.: Fair Oak Express

Report Number: 729318
Location: Fair Oak Express

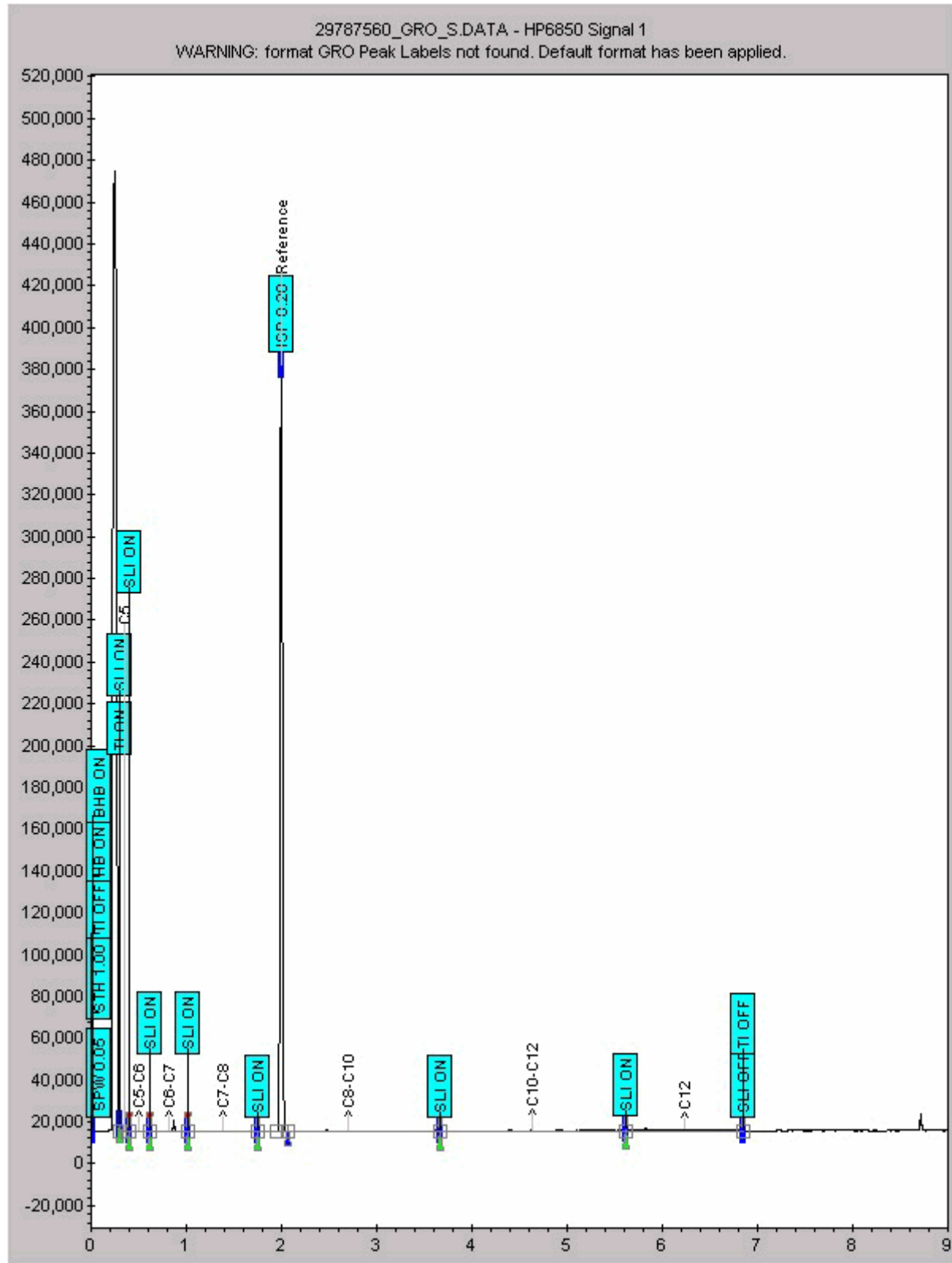
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 29787560
Sample ID : CW2

Depth : 2.50 - 3.00





CERTIFICATE OF ANALYSIS

Validated

SDG: 240514-35
Client Ref.: Fair Oak Express

Report Number: 729318
Location: Fair Oak Express

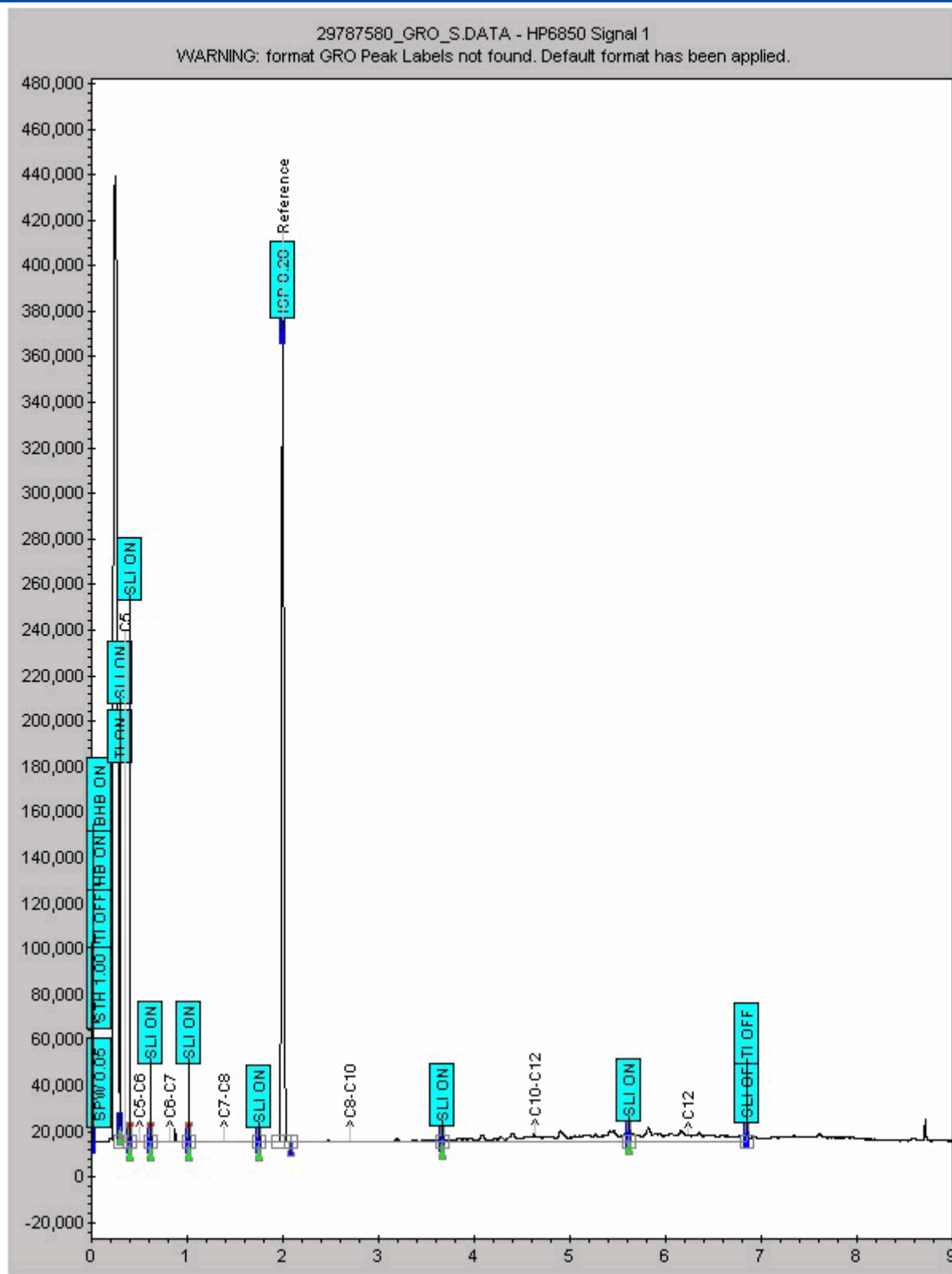
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 29787580
Sample ID : CW1

Depth : 2.50 - 3.00





CERTIFICATE OF ANALYSIS

SDG: 240514-35
Client Ref: Fair Oak Express

Report Number: 729318
Location: Fair Oak Express

Superseded Report:

Appendix

1. Results are expressed on a dry weight basis (dried at 35°C) 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. If sufficient sample is received a sub sample will be retained free of charge for 15 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 15 days 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. ALS reserve the right to charge for samples received and stored but not analysed.

3. 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.

4. 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.

5. 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.

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

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **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%. 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.

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

11. 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.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. 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.

15. 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.

16. 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.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. Sample Deviations

If a sample is classed as deviated then the associated results may be compromised.

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Matrix interference
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to late arrival of instructions or samples
§	Sampled on date not provided

20. Asbestos

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 (2021), 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 (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials and soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

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 ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

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.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

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.



WSP UK Limited
8 First Street
Main
Lancashire
M15 4RP

Attention: Rhys Evans

Units 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

CERTIFICATE OF ANALYSIS

Date of report Generation:	28 May 2024
Customer:	WSP UK Limited
Sample Delivery Group (SDG):	240518-41
Your Reference:	Fair Oak Express
Location:	Fair Oak Express
Report No:	729804
Order Number:	70113388-GW2

We received 3 samples on Saturday May 18, 2024 and 3 of these samples were scheduled for analysis which was completed on Tuesday May 28, 2024. 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.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.

Incorrect sampling dates and/or sample information will affect the validity of results.

The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Sonia McWhan

Operations Manager



1291



CERTIFICATE OF ANALYSIS

Validated

SDG: 240518-41
Client Ref.: Fair Oak Express

Report Number: 729804
Location: Fair Oak Express

Superseded Report:

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
29814095	CW3	ES	0.50 - 0.60	14/05/2024
29814100	CW4	ES	0.60 - 0.60	16/05/2024
29814105	CW5	ES	0.85 - 0.90	16/05/2024

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

SDG: 240518-41

Report Number: 729804

Superseded Report:

Client Ref.: Fair Oak Express

Location: Fair Oak Express

Results Legend X Test N No Determination Possible Sample Types - S - Soil/Solid UNS - Unspecified Solid GW - Ground Water SW - Surface Water LE - Land Leachate PL - Prepared Leachate PR - Process Water SA - Saline Water TE - Trade Effluent TS - Treated Sewage US - Untreated Sewage RE - Recreational Water DW - Drinking Water Non-regulatory UNL - Unspecified Liquid SL - Sludge G - Gas OTH - Other	Lab Sample No(s)		29814095		29814100		29814105	
	Customer Sample Reference			CM3		CM4		CM5
	AGS Reference			ES		ES		ES
	Depth (m)			0.50 - 0.60		0.60 - 0.60		0.85 - 0.90
	Container		1kg TUB with Handle (ALE210)	250g Amber jar (ALE215)	60g VOC (ALE215)	1kg TUB with Handle (ALE210)	250g Amber jar (ALE210)	60g VOC (ALE215)
	Sample Type		S	S	S	S	S	S
	Asbestos ID in Solid Samples		All	NDPs: 0 Tests: 3	X		X	
Boron Water Soluble	All	NDPs: 0 Tests: 3		X		X		X
EPH CWG GC (S)	All	NDPs: 0 Tests: 3		X		X		X
GRO by GC-FID (S)	All	NDPs: 0 Tests: 3			X		X	
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 3		X		X		X
Metals in solid samples by OES	All	NDPs: 0 Tests: 3		X		X		X
PAH by GCMS	All	NDPs: 0 Tests: 3		X		X		X
Sample description	All	NDPs: 0 Tests: 3		X		X		X
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 3		X		X		X
Total Organic Carbon	All	NDPs: 0 Tests: 3		X		X		X
TPH CWG GC (S)	All	NDPs: 0 Tests: 3		X		X		X
VOC MS (S)	All	NDPs: 0 Tests: 3			X		X	



CERTIFICATE OF ANALYSIS

Validated

SDG: 240518-41
Client Ref.: Fair Oak Express

Report Number: 729804
Location: Fair Oak Express

Superseded Report:

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm
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Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
29814095	CW3	0.50 - 0.60	Dark Brown	Sand	Stones	Vegetation
29814100	CW4	0.60 - 0.60	Light Brown	Clay	None	None
29814105	CW5	0.85 - 0.90	Light Brown	Clay	Vegetation	None

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

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 materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

SDG: 240518-41

Report Number: 729804

Superseded Report:

Client Ref.: Fair Oak Express

Location: Fair Oak Express

[illegible]

SDG: 240518-41

Report Number: 729804

Superseded Report:

Client Ref.: Fair Oak Express

Location: Fair Oak Express

PAH by GCMS

[illegible]



CERTIFICATE OF ANALYSIS

Validated

SDG: 240518-41
Client Ref.: Fair Oak Express

Report Number: 729804
Location: Fair Oak Express

Superseded Report:

Semi Volatile Organic Compounds

Results Legend		Customer Sample Ref.	CW3	CW4	CW5			
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference						
M	mCERTS accredited.							
aq	Aqueous / settled sample.							
diss,filtr	Dissolved / filtered sample.							
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted - refer to subcontractor report for accreditation status.		0.50 - 0.60 Soil/Solid (S) 14/05/2024	0.60 - 0.60 Soil/Solid (S) 16/05/2024	0.85 - 0.90 Soil/Solid (S) 16/05/2024			
**	% 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		18/05/2024 240518-41 29814095 ES	18/05/2024 240518-41 29814100 ES	18/05/2024 240518-41 29814105 ES			
(F)	Trigger breach confirmed							
1-4.5@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
Phenol	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Pentachlorophenol	<0.1 mg/kg	TM157	<1	<1	<1			
n-Nitroso-n-dipropylamine	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Nitrobenzene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Isophorone	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Hexachloroethane	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Hexachlorocyclopentadiene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Hexachlorobutadiene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Hexachlorobenzene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
n-Dioctyl phthalate	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Dimethyl phthalate	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Diethyl phthalate	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
n-Dibutyl phthalate	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Dibenzofuran	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Carbazole	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Butylbenzyl phthalate	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
bis(2-Ethylhexyl) phthalate	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
bis(2-Chloroethoxy)methane	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
bis(2-Chloroethyl)ether	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Azobenzene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
4-Nitrophenol	<0.1 mg/kg	TM157	<1	<1	<1			
4-Nitroaniline	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
4-Methylphenol	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
4-Chlorophenylphenylether	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
4-Chloroaniline	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
4-Chloro-3-methylphenol	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
4-Bromophenylphenylether	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
3-Nitroaniline	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
2-Nitrophenol	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
2-Nitroaniline	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
2-Methylphenol	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
1,2,4-Trichlorobenzene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			



CERTIFICATE OF ANALYSIS

Validated

SDG: 240518-41
Client Ref.: Fair Oak ExpressReport Number: 729804
Location: Fair Oak Express

Superseded Report:

Semi Volatile Organic Compounds

Results Legend		Customer Sample Ref.	CW3	CW4	CW5			
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference						
M	mCERTS accredited.							
aq	Aqueous / settled sample.							
dis.filt	Dissolved / filtered sample.							
tot.unfilt	Total / unfiltered sample.							
+	Subcontracted - refer to subcontractor report for accreditation status.							
**	% 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							
1-4&6@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
2-Chlorophenol	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
2,6-Dinitrotoluene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
2,4-Dinitrotoluene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
2,4-Dimethylphenol	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
2,4-Dichlorophenol	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
2,4,6-Trichlorophenol	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
2,4,5-Trichlorophenol	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
1,4-Dichlorobenzene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
1,3-Dichlorobenzene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
1,2-Dichlorobenzene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
2-Chloronaphthalene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
2-Methylnaphthalene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Acenaphthylene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Acenaphthene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Anthracene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Benzo(a)anthracene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Benzo(b)fluoranthene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Benzo(k)fluoranthene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Benzo(a)pyrene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Benzo(g,h,i)perylene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Chrysene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Fluoranthene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Fluorene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Indeno(1,2,3-cd)pyrene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Phenanthrene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Pyrene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Naphthalene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Dibenzo(a,h)anthracene	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			
Bis(2-chloroisopropyl) ether	<0.1 mg/kg	TM157	<0.1	<0.1	<0.1			

SDG: 240518-41

Report Number: 729804

Superseded Report:

Client Ref.: Fair Oak Express

Location: Fair Oak Express

TPH CWG (S)

[illegible]



CERTIFICATE OF ANALYSIS

Validated

SDG: 240518-41
Client Ref.: Fair Oak ExpressReport Number: 729804
Location: Fair Oak Express

Superseded Report:

VOC MS (S)

Results Legend		Customer Sample Ref.	CW3	CW4	CW5			
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50 - 0.60 Soil/Solid (S) 14/05/2024	0.60 - 0.60 Soil/Solid (S) 16/05/2024	0.85 - 0.90 Soil/Solid (S) 16/05/2024			
M	mCERTS accredited.							
aq	Aqueous / settled sample.							
diss,filtr	Dissolved / filtered sample.							
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted - refer to subcontractor report for accreditation status.							
**	% 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		18/05/2024 240518-41 29814095 ES	18/05/2024 240518-41 29814100 ES	18/05/2024 240518-41 29814105 ES			
(F)	Trigger breach confirmed							
1-4456	Sample deviation (see appendix)							
Component	LOD/Units	Method						
Dibromofluoromethane**	%	TM116	109	110	110			
Toluene-d8**	%	TM116	97.1	97.3	98.9			
4-Bromofluorobenzene**	%	TM116	99.8	102	101			
Dichlorodifluoromethane	<0.0005 mg/kg	TM116	<0.005 3 #	<0.005 3 #	<0.005 3 #			
Chloromethane	<0.002 mg/kg	TM116	<0.02 3 #	<0.02 3 #	<0.02 3 #			
Vinyl Chloride	<0.0005 mg/kg	TM116	<0.005 M	<0.005 M	<0.005 M			
Bromomethane	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M			
Chloroethane	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M			
Trichlorofluoromethane	<0.0005 mg/kg	TM116	<0.005 M	<0.005 M	<0.005 M			
1,1-Dichloroethene	<0.0005 mg/kg	TM116	<0.005 #	<0.005 #	<0.005 #			
Carbon Disulphide	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M			
Dichloromethane	<0.005 mg/kg	TM116	<0.05 #	<0.05 #	<0.05 #			
Methyl Tertiary Butyl Ether	<0.0005 mg/kg	TM116	<0.005 M	<0.005 M	<0.005 M			
trans-1,2-Dichloroethene	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M			
1,1-Dichloroethane	<0.0005 mg/kg	TM116	<0.005 M	<0.005 M	<0.005 M			
cis-1,2-Dichloroethene	<0.0005 mg/kg	TM116	<0.005 M	<0.005 M	<0.005 M			
2,2-Dichloropropane	<0.001 mg/kg	TM116	<0.01	<0.01	<0.01			
Bromochloromethane	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M			
Chloroform	<0.003 mg/kg	TM116	<0.03 M	<0.03 M	<0.03 M			
1,1,1-Trichloroethane	<0.0005 mg/kg	TM116	<0.005 M	<0.005 M	<0.005 M			
1,1-Dichloropropene	<0.0005 mg/kg	TM116	<0.005 M	<0.005 M	<0.005 M			
Carbontetrachloride	<0.0005 mg/kg	TM116	<0.005 M	<0.005 M	<0.005 M			
1,2-Dichloroethane	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M			
Benzene	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M			
Trichloroethene	<0.001 mg/kg	TM116	<0.01 #	<0.01 #	<0.01 #			
1,2-Dichloropropane	<0.0005 mg/kg	TM116	<0.005 M	<0.005 M	<0.005 M			
Dibromomethane	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M			
Bromodichloromethane	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M			
cis-1,3-Dichloropropene	<0.0005 mg/kg	TM116	<0.005 M	<0.005 M	<0.005 M			
Toluene	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M			
trans-1,3-Dichloropropene	<0.001 mg/kg	TM116	<0.01	<0.01	<0.01			
1,1,2-Trichloroethane	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M			



CERTIFICATE OF ANALYSIS

Validated

SDG: 240518-41
Client Ref.: Fair Oak ExpressReport Number: 729804
Location: Fair Oak Express

Superseded Report:

VOC MS (S)

Results Legend		Customer Sample Ref.	CW3	CW4	CW5			
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference						
M	mCERTS accredited.							
aq	Aqueous / settled sample.							
dis.filt	Dissolved / filtered sample.							
tot.unfilt	Total / unfiltered sample.							
+	Subcontracted - refer to subcontractor report for accreditation status.							
**	% 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							
1-4.6@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
1,3-Dichloropropane	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M			
Tetrachloroethene	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M			
Dibromochloromethane	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M			
1,2-Dibromoethane	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M			
Chlorobenzene	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M			
1,1,1,2-Tetrachloroethane	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M			
Ethylbenzene	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M			
p/m-Xylene	<0.002 mg/kg	TM116	<0.02 #	<0.02 #	<0.02 #			
o-Xylene	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M			
Styrene	<0.002 mg/kg	TM116	<0.02 #	<0.02 #	<0.02 #			
Bromoform	<0.002 mg/kg	TM116	<0.045 M	<0.045 M	<0.05 M			
Isopropylbenzene	<0.002 mg/kg	TM116	<0.02 #	<0.02 #	<0.02 #			
1,1,2,2-Tetrachloroethane	<0.002 mg/kg	TM116	<0.02 #	<0.02 #	<0.02 #			
1,2,3-Trichloropropane	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M			
Bromobenzene	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M			
Propylbenzene	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M			
2-Chlorotoluene	<0.003 mg/kg	TM116	<0.03 M	<0.03 M	<0.03 M			
1,3,5-Trimethylbenzene	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M			
4-Chlorotoluene	<0.003 mg/kg	TM116	<0.03 M	<0.03 M	<0.03 M			
tert-Butylbenzene	<0.002 mg/kg	TM116	<0.02 #	<0.02 #	<0.02 #			
1,2,4-Trimethylbenzene	<0.003 mg/kg	TM116	<0.03 #	<0.03 #	<0.03 #			
sec-Butylbenzene	<0.001 mg/kg	TM116	<0.01	<0.01	<0.01			
4-Isopropyltoluene	<0.002 mg/kg	TM116	<0.02	<0.02	<0.02			
1,3-Dichlorobenzene	<0.005 mg/kg	TM116	<0.05 M	<0.05 M	<0.05 M			
1,4-Dichlorobenzene	<0.005 mg/kg	TM116	<0.05 M	<0.05 M	<0.05 M			
n-Butylbenzene	<0.003 mg/kg	TM116	<0.03	<0.03	<0.03			
1,2-Dichlorobenzene	<0.005 mg/kg	TM116	<0.05 M	<0.05 M	<0.05 M			
1,2-Dibromo-3-chloropropane	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M			
Tert-amyl methyl ether	<0.001 mg/kg	TM116	<0.01 #	<0.01 #	<0.01 #			
1,2,4-Trichlorobenzene	<0.007 mg/kg	TM116	<0.07	<0.07	<0.07			
Hexachlorobutadiene	<0.004 mg/kg	TM116	<0.04	<0.04	<0.04			
Naphthalene	<0.008 mg/kg	TM116	<0.08 M	<0.08 M	<0.08 M			

SDG: 240518-41

Report Number: 729804

Superseded Report:

Client Ref.: Fair Oak Express

Location: Fair Oak Express

VOC MS (S)

[illegible]



CERTIFICATE OF ANALYSIS

Validated

SDG: 240518-41
Client Ref.: Fair Oak Express

Report Number: 729804
Location: Fair Oak Express

Superseded Report:

Asbestos Identification - Solid Samples

Results Legend

ISO17025 accredited.
M mCERTS accredited.
* Subcontracted test.
(F) Trigger breach confirmed
1-5&*\$@ Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Asbestos Actinolite	Asbestos Anthophyllite	Asbestos Tremolite	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Non-Asbestos Fibre
Cust. Sample Ref.	CW3ES 0.50 - 0.60 SOLID	20/05/24	Danielle Duncan	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Depth (m)	14/05/2024 00:00:00										
Sample Type	18/05/2024 09:00:00										
Date Sampled	240518-41										
Date Received	29814095										
SDG	TM048										
Original Sample											
Method Number											
Cust. Sample Ref.	CW4ES 0.60 - 0.60 SOLID	20/05/24	Danielle Duncan	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Depth (m)	16/05/2024 00:00:00										
Sample Type	18/05/2024 09:00:00										
Date Sampled	240518-41										
Date Received	29814100										
SDG	TM048										
Original Sample											
Method Number											
Cust. Sample Ref.	CW5ES 0.85 - 0.90 SOLID	20/05/24	Ashia Jackson	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Depth (m)	16/05/2024 00:00:00										
Sample Type	18/05/2024 09:00:00										
Date Sampled	240518-41										
Date Received	29814105										
SDG	TM048										
Original Sample											
Method Number											



CERTIFICATE OF ANALYSIS

Validated

SDG: 240518-41
Client Ref.: Fair Oak Express

Report Number: 729804
Location: Fair Oak Express

Superseded Report:

Table of Results - Appendix

Method No	Description
PM024	Soil preparation including homogenisation, moisture, screens of soils for Asbestos Containing Material
TM048	Identification of Asbestos in Bulk Material
TM089	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	ELTRA CS800 Operators Guide
TM151	Determination of Hexavalent Chromium using Kone analyser
TM157	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM181	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	The determination of PAH in soil samples by GC-MS
TM222	Determination of Hot Water Soluble Boron in Soils (10:1 Water:Soil) by ICP OES.
TM414	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).



CERTIFICATE OF ANALYSIS

Validated

SDG: 240518-41
Client Ref.: Fair Oak Express

Report Number: 729804
Location: Fair Oak Express

Superseded Report:

Test Completion Dates

Lab Sample No(s)	29814095	29814100	29814105
Customer Sample Ref.	CW3	CW4	CW5
AGS Ref.	ES	ES	ES
Depth	0.50 - 0.60	0.60 - 0.60	0.85 - 0.90
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)

Asbestos ID in Solid Samples	20-May-2024	20-May-2024	20-May-2024
Boron Water Soluble	23-May-2024	23-May-2024	23-May-2024
EPH CWG GC (S)	21-May-2024	21-May-2024	21-May-2024
GRO by GC-FID (S)	21-May-2024	21-May-2024	21-May-2024
Hexavalent Chromium (s)	21-May-2024	22-May-2024	22-May-2024
Metals in solid samples by OES	24-May-2024	24-May-2024	24-May-2024
PAH by GCMS	21-May-2024	21-May-2024	21-May-2024
Sample description	18-May-2024	18-May-2024	18-May-2024
Semi Volatile Organic Compounds	21-May-2024	21-May-2024	21-May-2024
Total Organic Carbon	28-May-2024	28-May-2024	28-May-2024
TPH CWG GC (S)	21-May-2024	21-May-2024	21-May-2024
VOC MS (S)	21-May-2024	21-May-2024	21-May-2024



CERTIFICATE OF ANALYSIS

Validated

SDG: 240518-41
Client Ref.: Fair Oak Express

Report Number: 729804
Location: Fair Oak Express

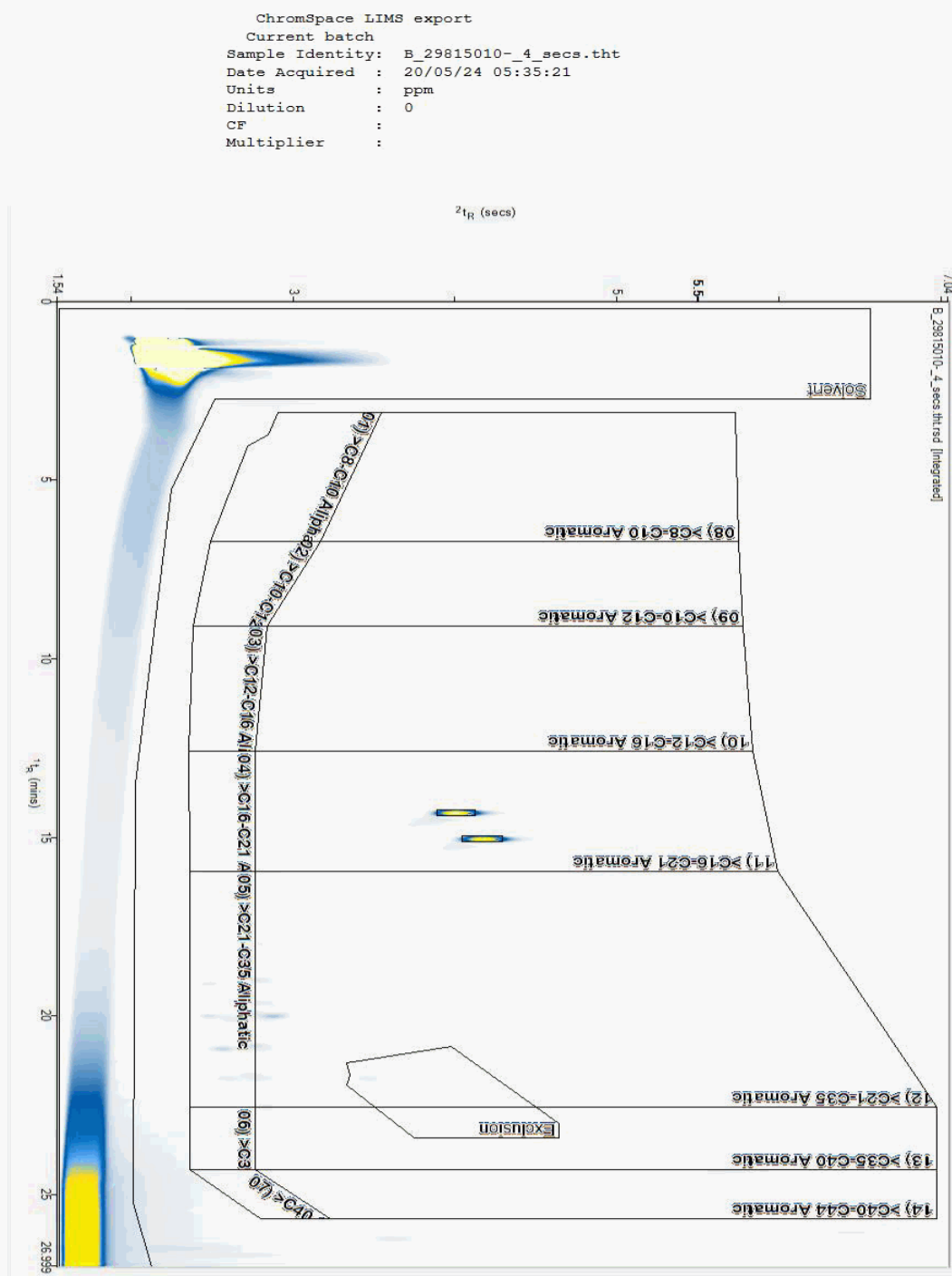
Superseded Report:

Chromatogram

Analysis: EPH CWG GC (S)

Sample No : 29815010
Sample ID : CW3

Depth : 0.50 - 0.60





CERTIFICATE OF ANALYSIS

Validated

SDG: 240518-41
Client Ref.: Fair Oak Express

Report Number: 729804
Location: Fair Oak Express

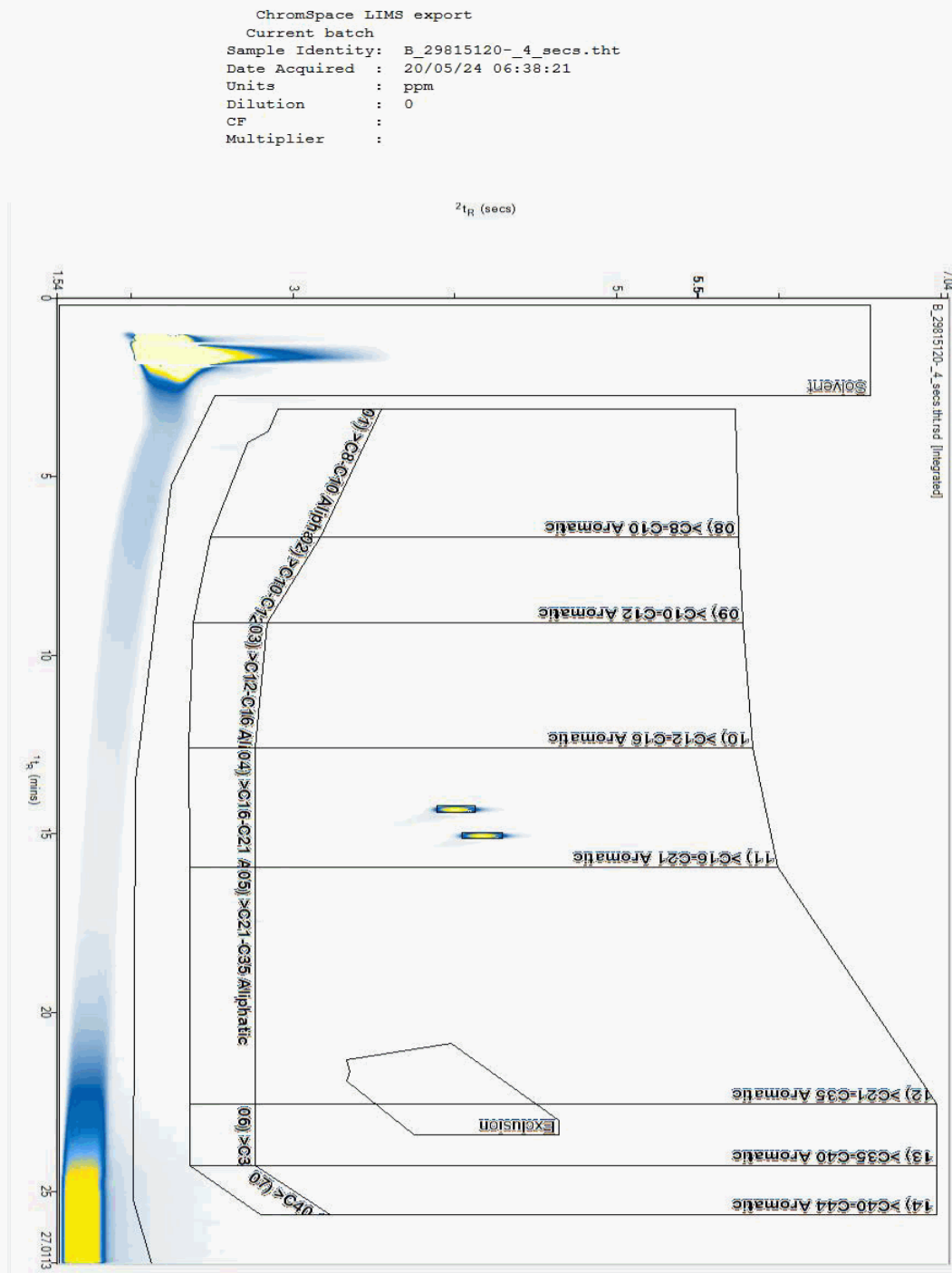
Superseded Report:

Chromatogram

Analysis: EPH CWG GC (S)

Sample No : 29815120
Sample ID : CW4

Depth : 0.60 - 0.60





CERTIFICATE OF ANALYSIS

Validated

SDG: 240518-41
Client Ref.: Fair Oak Express

Report Number: 729804
Location: Fair Oak Express

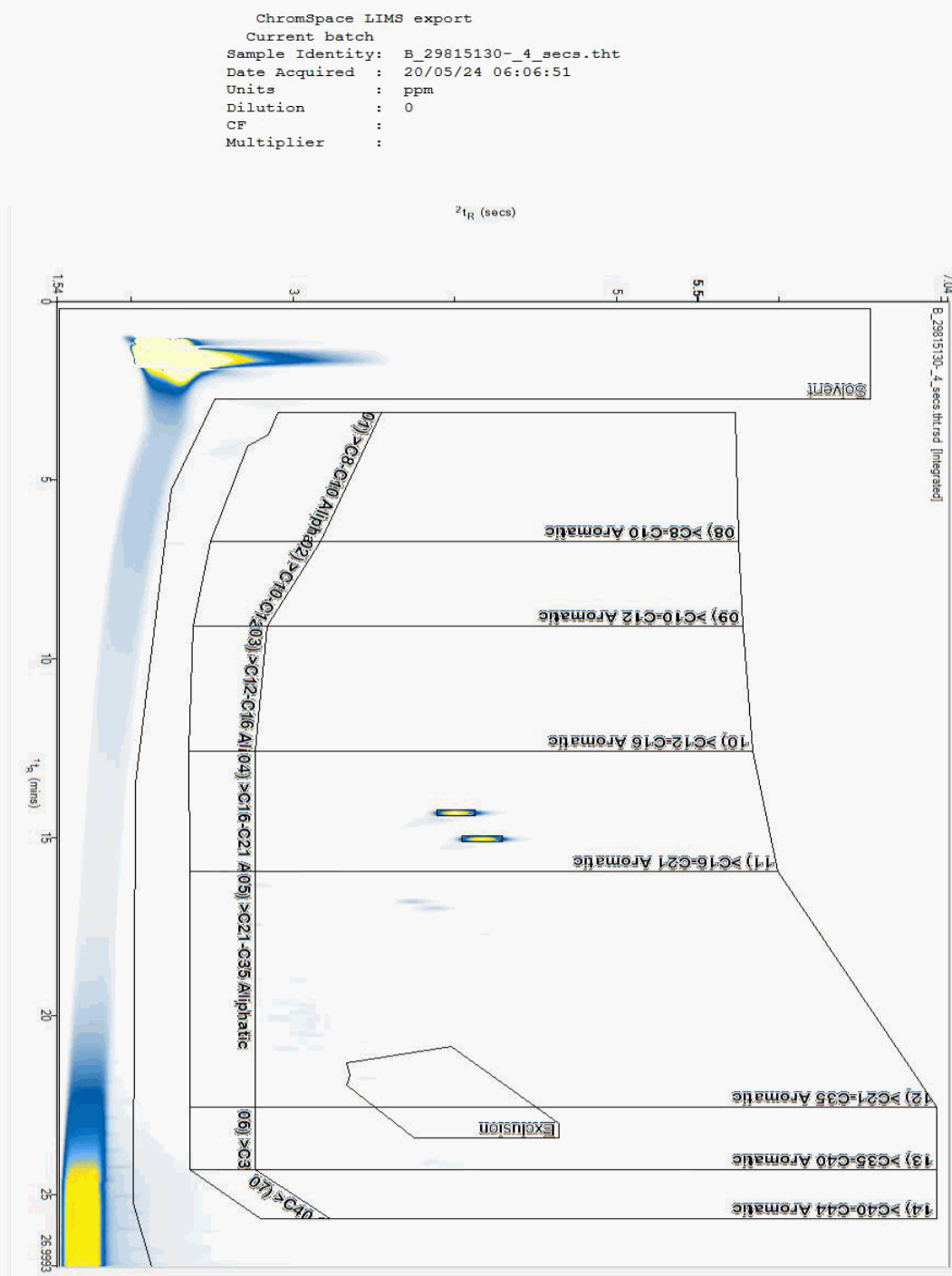
Superseded Report:

Chromatogram

Analysis: EPH CWG GC (S)

Sample No : 29815130
Sample ID : CW5

Depth : 0.85 - 0.90





CERTIFICATE OF ANALYSIS

Validated

SDG: 240518-41
Client Ref.: Fair Oak Express

Report Number: 729804
Location: Fair Oak Express

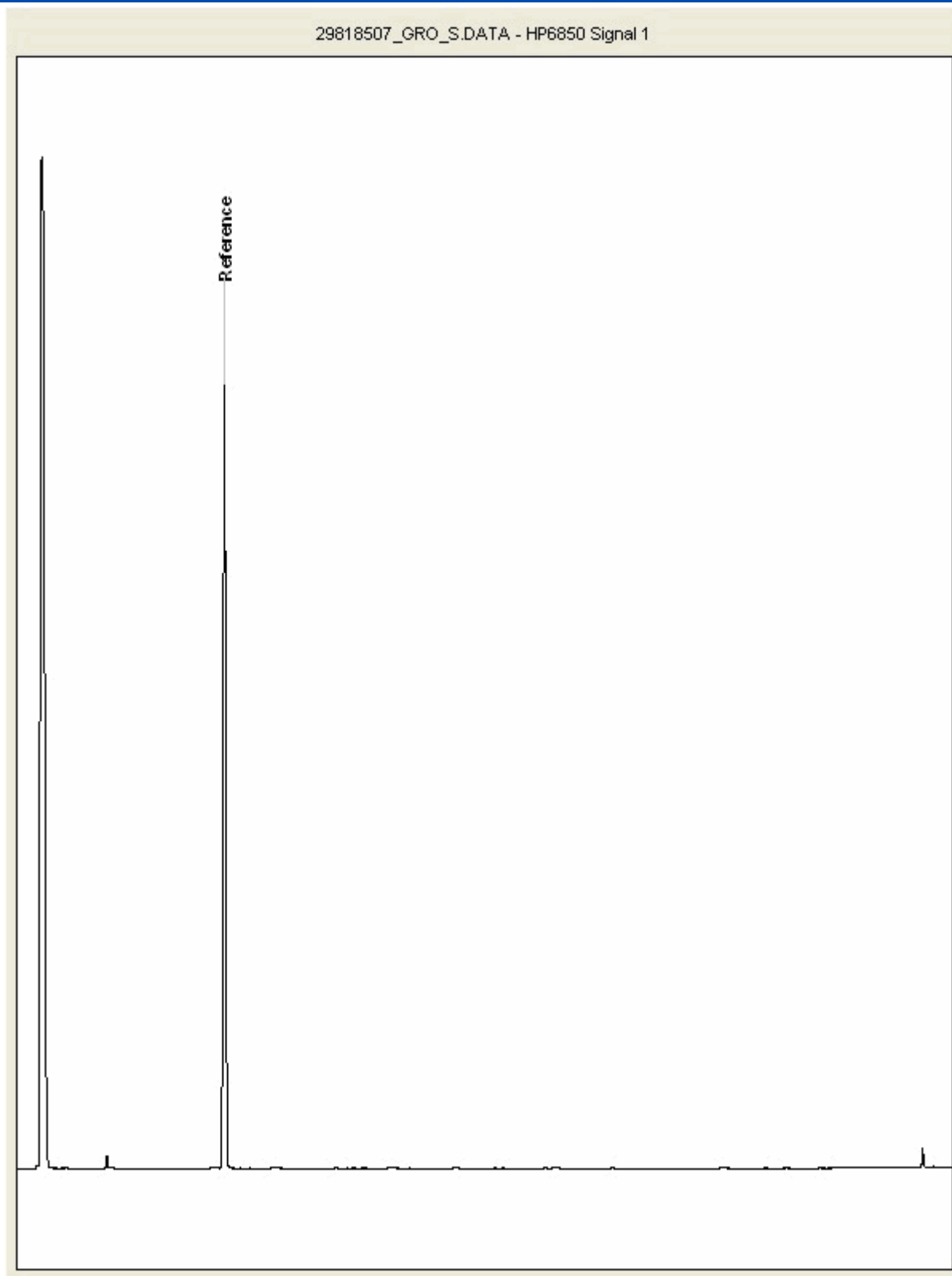
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 29818507
Sample ID : CW4

Depth : 0.60 - 0.60





CERTIFICATE OF ANALYSIS

Validated

SDG: 240518-41
Client Ref.: Fair Oak Express

Report Number: 729804
Location: Fair Oak Express

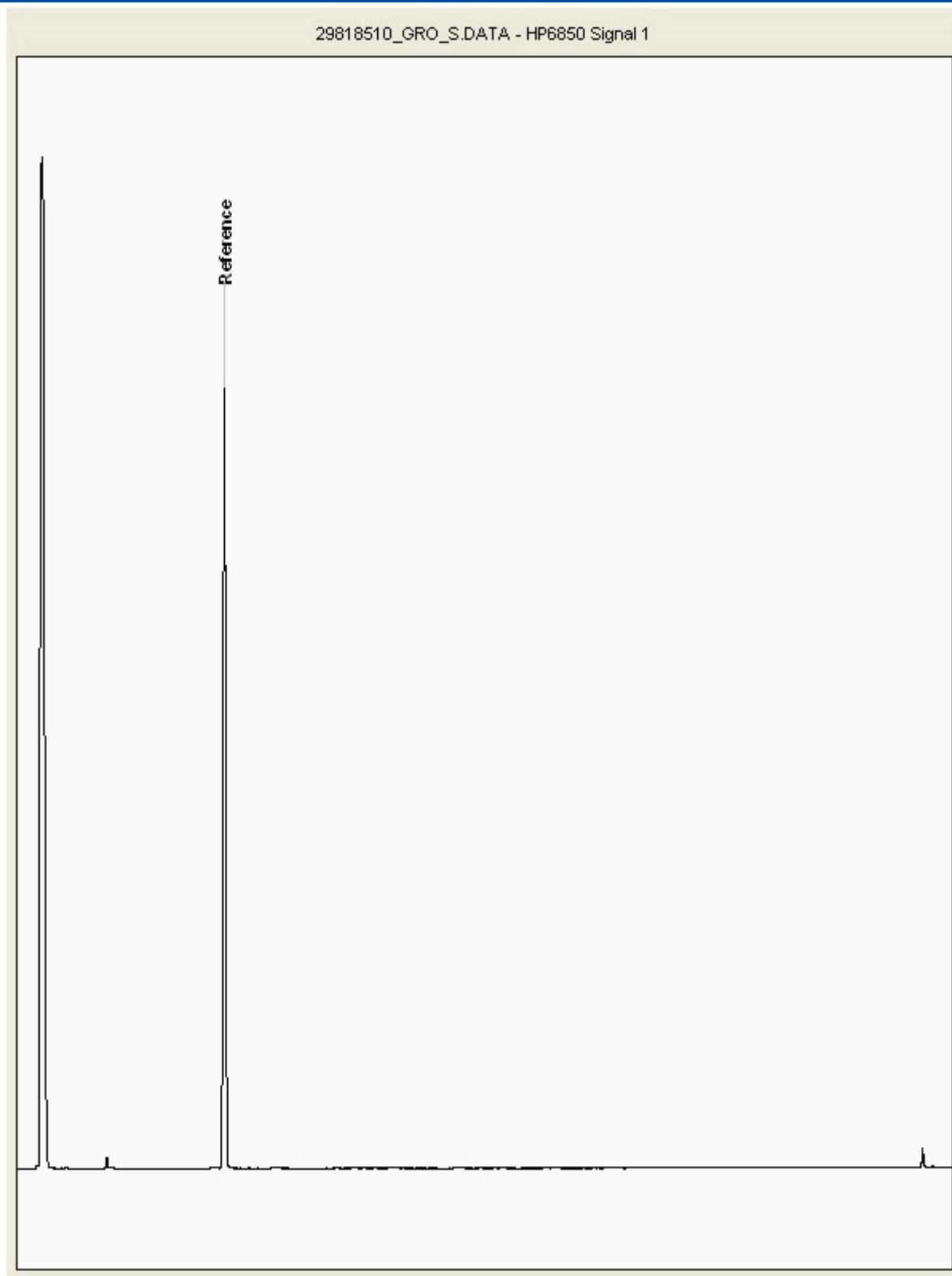
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 29818510
Sample ID : CW5

Depth : 0.85 - 0.90





CERTIFICATE OF ANALYSIS

Validated

SDG: 240518-41
Client Ref.: Fair Oak Express

Report Number: 729804
Location: Fair Oak Express

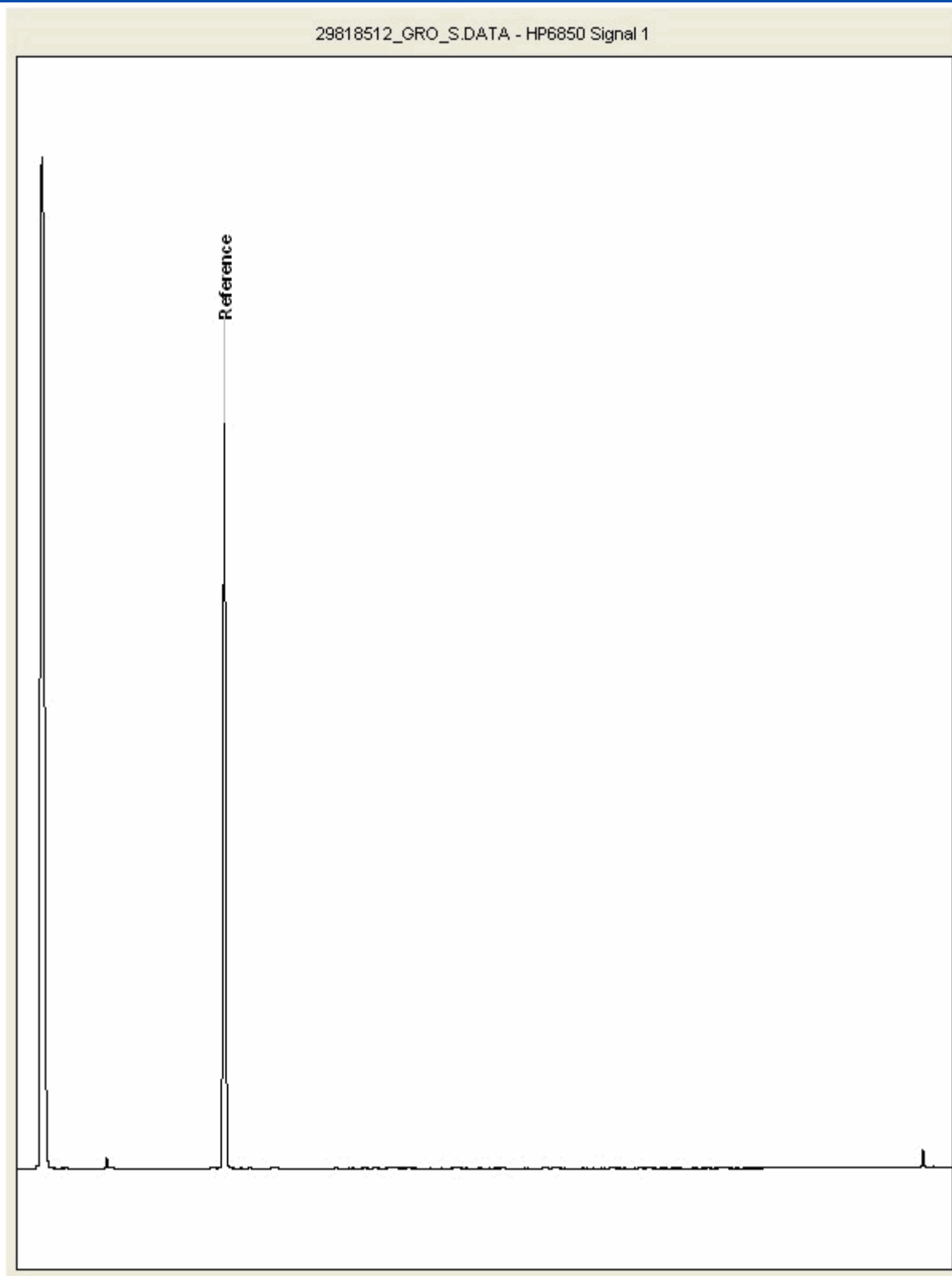
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 29818512
Sample ID : CW3

Depth : 0.50 - 0.60





CERTIFICATE OF ANALYSIS

SDG: 240518-41
Client Ref: Fair Oak Express

Report Number: 729804
Location: Fair Oak Express

Superseded Report:

Appendix

1. Results are expressed on a dry weight basis (dried at 35°C) 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. If sufficient sample is received a sub sample will be retained free of charge for 15 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 15 days 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. ALS reserve the right to charge for samples received and stored but not analysed.

3. 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.

4. 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.

5. 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.

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

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **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%. 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.

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

11. 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.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. 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.

15. 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 (BTX). 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.

16. 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.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. Sample Deviations

If a sample is classed as deviated then the associated results may be compromised.

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Matrix interference
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to late arrival of instructions or samples
§	Sampled on date not provided

20. Asbestos

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 (2021), 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 (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials and soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

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 ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

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.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

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.



WSP UK Limited
8 First Street
Main
Lancashire
M15 4RP

Attention: Rhys Evans

Units 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

CERTIFICATE OF ANALYSIS

Date of report Generation:	28 June 2024
Customer:	WSP UK Limited
Sample Delivery Group (SDG):	240621-40
Your Reference:	Fair Oak Express
Location:	Fair Oak Express
Report No:	733158
Order Number:	70113388-P01

We received 5 samples on Friday June 21, 2024 and 5 of these samples were scheduled for analysis which was completed on Friday June 28, 2024. 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.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.

Incorrect sampling dates and/or sample information will affect the validity of results.

The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

Sonia McWhan

Operations Manager



1291



CERTIFICATE OF ANALYSIS

Validated

SDG: 240621-40
Client Ref.: Fair Oak Express

Report Number: 733158
Location: Fair Oak Express

Superseded Report:

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
29964164	SS1	ES	0.10 - 0.20	19/06/2024
29964170	SS2	ES	0.10 - 0.20	19/06/2024
29964176	SS3	ES	0.10 - 0.20	19/06/2024
29964181	SS4	ES	0.10 - 0.20	19/06/2024
29964187	SS5	ES	0.10 - 0.20	19/06/2024

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



CERTIFICATE OF ANALYSIS

Validated

SDG: 240621-40
Client Ref.: Fair Oak Express

Report Number: 733158
Location: Fair Oak Express

Superseded Report:

Results Legend X Test N No Determination Possible Sample Types - S - Soil/Solid UNS - Unspecified Solid GW - Ground Water SW - Surface Water LE - Land Leachate PL - Prepared Leachate PR - Process Water SA - Saline Water TE - Trade Effluent TS - Treated Sewage US - Untreated Sewage RE - Recreational Water DW - Drinking Water Non-regulatory UNL - Unspecified Liquid SL - Sludge G - Gas OTH - Other	Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
	29964187	SS5	ES	0.10 - 0.20	60g VOC (ALE215) 250g Amber Jar (ALE210) 1kg TUB with Handle (ALE215)	S
	29964181	SS4	ES	0.10 - 0.20	60g VOC (ALE215) 250g Amber Jar (ALE210) 1kg TUB with Handle (ALE215)	S
	29964176	SS3	ES	0.10 - 0.20	60g VOC (ALE215) 250g Amber Jar (ALE210) 1kg TUB with Handle (ALE215)	S
	29964170	SS2	ES	0.10 - 0.20	60g VOC (ALE215) 250g Amber Jar (ALE210) 1kg TUB with Handle (ALE215)	S
	29964164	SS1	ES	0.10 - 0.20	60g VOC (ALE215) 250g Amber Jar (ALE210) 1kg TUB with Handle (ALE215)	S
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 5				
Boron Water Soluble	All	NDPs: 0 Tests: 5				
EPH CWG GC (S)	All	NDPs: 0 Tests: 5				
GRO by GC-FID (S)	All	NDPs: 0 Tests: 5				
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 5				
Metals in solid samples by OES	All	NDPs: 0 Tests: 5				
PAH by GCMS	All	NDPs: 0 Tests: 5				
Sample description	All	NDPs: 0 Tests: 5				
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 5				
Total Organic Carbon	All	NDPs: 0 Tests: 5				
TPH CWG GC (S)	All	NDPs: 0 Tests: 5				
VOC MS (S)	All	NDPs: 0 Tests: 5				



CERTIFICATE OF ANALYSIS

Validated

SDG: 240621-40
Client Ref.: Fair Oak Express

Report Number: 733158
Location: Fair Oak Express

Superseded Report:

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm
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Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
29964164	SS1	0.10 - 0.20	Dark Brown	Sandy Loam	Crushed Brick	Vegetation
29964170	SS2	0.10 - 0.20	Dark Brown	Sandy Loam	Stones	Vegetation
29964176	SS3	0.10 - 0.20	Dark Brown	Sandy Loam	Crushed Brick	Vegetation
29964181	SS4	0.10 - 0.20	Dark Brown	Sandy Loam	Crushed Brick	Stones
29964187	SS5	0.10 - 0.20	Dark Brown	Sandy Loam	Crushed Brick	Vegetation

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

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 materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

SDG: 240621-40
Client Ref.: Fair Oak Express

Report Number: 733158
Location: Fair Oak Express

Superseded Report:

[illegible]

SDG: 240621-40

Report Number: 733158

Superseded Report:

Client Ref.: Fair Oak Express

Location: Fair Oak Express

PAH by GCMS

[illegible]



CERTIFICATE OF ANALYSIS

Validated

SDG: 240621-40
Client Ref.: Fair Oak ExpressReport Number: 733158
Location: Fair Oak Express

Superseded Report:

Semi Volatile Organic Compounds

Results Legend		Customer Sample Ref.	SS1	SS2	SS3	SS4	SS5	
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.10 - 0.20 Soil/Solid (S) 19/06/2024	0.10 - 0.20 Soil/Solid (S) 19/06/2024	0.10 - 0.20 Soil/Solid (S) 19/06/2024	0.10 - 0.20 Soil/Solid (S) 19/06/2024	0.10 - 0.20 Soil/Solid (S) 19/06/2024	
M	mCERTS accredited.							
aq	Aqueous / filtered sample.							
diss,filtr	Dissolved / filtered sample.							
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted - refer to subcontractor report for accreditation status.							
**	% 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							
1-456@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
Phenol	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
Pentachlorophenol	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
n-Nitroso-n-dipropylamine	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
Nitrobenzene	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
Isophorone	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
Hexachloroethane	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
Hexachlorocyclopentadiene	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
Hexachlorobutadiene	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
Hexachlorobenzene	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
n-Dioctyl phthalate	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
Dimethyl phthalate	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
Diethyl phthalate	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
n-Dibutyl phthalate	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
Dibenzofuran	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
Carbazole	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
Butylbenzyl phthalate	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
bis(2-Ethylhexyl) phthalate	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
bis(2-Chloroethoxy)methane	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
bis(2-Chloroethyl)ether	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
Azobenzene	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
4-Nitrophenol	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.5	
4-Nitroaniline	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
4-Methylphenol	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
4-Chlorophenylphenylether	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
4-Chloroaniline	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
4-Chloro-3-methylphenol	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
4-Bromophenylphenylether	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
3-Nitroaniline	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
2-Nitrophenol	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
2-Nitroaniline	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
2-Methylphenol	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	
1,2,4-Trichlorobenzene	<0.1 mg/kg	TM157	<0.5	<0.5	<0.5	<0.5	<0.1	



CERTIFICATE OF ANALYSIS

Validated

SDG: 240621-40
Client Ref.: Fair Oak Express

Report Number: 733158
Location: Fair Oak Express

Superseded Report:

Semi Volatile Organic Compounds

Results Legend			Customer Sample Ref.	SS1	SS2	SS3	SS4	SS5	
#	ISO17025 accredited.		Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.10 - 0.20 Soil/Solid (S) 19/06/2024	0.10 - 0.20 Soil/Solid (S) 19/06/2024	0.10 - 0.20 Soil/Solid (S) 19/06/2024	0.10 - 0.20 Soil/Solid (S) 19/06/2024	0.10 - 0.20 Soil/Solid (S) 19/06/2024	
M	mCERTS accredited.								
aq	Aqueous / settled sample.								
dis.filt	Dissolved / filtered sample.								
tot.unfilt	Total / unfiltered sample.								
+	Subcontracted - refer to subcontractor report for accreditation status.								
**	% 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			21/06/2024 240621-40 29964164 ES	21/06/2024 240621-40 29964170 ES	21/06/2024 240621-40 29964176 ES	21/06/2024 240621-40 29964181 ES	21/06/2024 240621-40 29964187 ES	
(F)	Trigger breach confirmed								
1-4&6@	Sample deviation (see appendix)								
Component	LOD/Units	Method							
2-Chlorophenol	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	<0.1	
2,6-Dinitrotoluene	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	<0.1	
2,4-Dinitrotoluene	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	<0.1	
2,4-Dimethylphenol	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	<0.1	
2,4-Dichlorophenol	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	<0.1	
2,4,6-Trichlorophenol	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	<0.1	
2,4,5-Trichlorophenol	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	<0.1	
1,4-Dichlorobenzene	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	<0.1	
1,3-Dichlorobenzene	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	<0.1	
1,2-Dichlorobenzene	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	<0.1	
2-Chloronaphthalene	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	<0.1	
2-Methylnaphthalene	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	<0.1	
Acenaphthylene	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	0.161	
Acenaphthene	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	<0.1	
Anthracene	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	0.193	
Benzo(a)anthracene	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	2.05	
Benzo(b)fluoranthene	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	1.87	
Benzo(k)fluoranthene	<0.1 mg/kg	TM157		<0.5	0.625	<0.5	<0.5	2.51	
Benzo(a)pyrene	<0.1 mg/kg	TM157		<0.5	0.6	<0.5	<0.5	2.55	
Benzo(g,h,i)perylene	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	1.8	
Chrysene	<0.1 mg/kg	TM157		<0.5	0.701	<0.5	<0.5	2.42	
Fluoranthene	<0.1 mg/kg	TM157		0.776	0.991	0.697	<0.5	3.81	
Fluorene	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	<0.1	
Indeno(1,2,3-cd)pyrene	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	1.57	
Phenanthrene	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	0.82	
Pyrene	<0.1 mg/kg	TM157		0.67	0.866	<0.5	<0.5	3.4	
Naphthalene	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	<0.1	
Dibenzo(a,h)anthracene	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	0.207	
Bis(2-chloroisopropyl) ether	<0.1 mg/kg	TM157		<0.5	<0.5	<0.5	<0.5	<0.1	



CERTIFICATE OF ANALYSIS

Validated

SDG: 240621-40
Client Ref.: Fair Oak ExpressReport Number: 733158
Location: Fair Oak Express

Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample Ref.	SS1	SS2	SS3	SS4	SS5	
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference						
M	mCERTS accredited.							
aq	Aqueous / settled sample.							
diss,filtr	Dissolved / filtered sample.							
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted - refer to subcontractor report for accreditation status.							
**	% 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							
1-4456	Sample deviation (see appendix)							
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	78.2	79.8	70.4	76.9	82	
Aliphatics >C5-C6 (HS_1D_AL)	<0.01 mg/kg	TM089	<0.01	<0.01	<0.01	<0.01	<0.01	
Aliphatics >C6-C8 (HS_1D_AL)	<0.01 mg/kg	TM089	<0.01	<0.01	<0.01	<0.01	<0.01	
Aliphatics >C8-C10 (HS_1D_AL)	<0.01 mg/kg	TM089	<0.01	<0.01	<0.01	<0.01	<0.01	
Aliphatics >C10-C12 (EH_2D_AL_#1)	<1 mg/kg	TM414	<1 #	<1 #	<1 #	<1 #	<1 #	
Aliphatics >C12-C16 (EH_2D_AL_#1)	<1 mg/kg	TM414	<1 #	<1 #	<1 #	<1 #	<1 #	
Aliphatics >C16-C21 (EH_2D_AL_#1)	<1 mg/kg	TM414	7.25 #	2.16 #	3.78 #	4.5 #	1.07 #	
Aliphatics >C21-C35 (EH_2D_AL_#1)	<1 mg/kg	TM414	29.9 #	37.2 #	18.9 #	18.2 #	9.8 #	
Aliphatics >C35-C44 (EH_2D_AL_#1)	<1 mg/kg	TM414	6.84	12.7	5.61	5.8	1.13	
Total Aliphatics >C10-C44 (EH_2D_AR_#1)	<5 mg/kg	TM414	45	52.3	28.7	28.9	12	
Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1)	<10 mg/kg	TM414	186	148	145	111	117	
Aromatics >EC5-EC7 (HS_1D_AR)	<0.01 mg/kg	TM089	<0.01	<0.01	<0.01	<0.01	<0.01	
Aromatics >EC7-EC8 (HS_1D_AR)	<0.01 mg/kg	TM089	<0.01	<0.01	<0.01	<0.01	<0.01	
Aromatics >EC8-EC10 (HS_1D_AR)	<0.01 mg/kg	TM089	<0.01	<0.01	<0.01	<0.01	<0.01	
Aromatics > EC10-EC12 (EH_2D_AR_#1)	<1 mg/kg	TM414	<1 #	<1 #	<1 #	<1 #	<1 #	
Aromatics > EC12-EC16 (EH_2D_AR_#1)	<1 mg/kg	TM414	7.68 #	1.52 #	3.2 #	1.59 #	2.02 #	
Aromatics > EC16-EC21 (EH_2D_AR_#1)	<1 mg/kg	TM414	35.1 #	11.4 #	18.9 #	14.4 #	13.7 #	
Aromatics > EC21-EC35 (EH_2D_AR_#1)	<1 mg/kg	TM414	71.8 #	65.2 #	60.4 #	46.9 #	72.5 #	
Aromatics >EC35-EC44 (EH_2D_AR_#1)	<1 mg/kg	TM414	26.2	17.7	34	19	16.4	
Aromatics > EC40-EC44 (EH_2D_AR_#1)	<1 mg/kg	TM414	11.8	5.22	15.5	8.32	2.62	
Total Aromatics > EC10-EC44 (EH_2D_AR_#1)	<5 mg/kg	TM414	141	95.8	116	81.8	105	
Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total)	<10 mg/kg	TM414	186	148	145	111	117	
Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL)	<0.05 mg/kg	TM089	<0.05	<0.05	<0.05	<0.05	<0.05	
Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL)	<0.05 mg/kg	TM089	<0.05	<0.05	<0.05	<0.05	<0.05	
GRO >C5-C10 (HS_1D_TOTAL)	<0.02 mg/kg	TM089	<0.02	<0.02	<0.02	<0.02	<0.02	



CERTIFICATE OF ANALYSIS

Validated

SDG: 240621-40
Client Ref.: Fair Oak ExpressReport Number: 733158
Location: Fair Oak Express

Superseded Report:

VOC MS (S)

Results Legend		Customer Sample Ref.	SS1	SS2	SS3	SS4	SS5	
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.10 - 0.20 Soil/Solid (S) 19/06/2024	0.10 - 0.20 Soil/Solid (S) 19/06/2024	0.10 - 0.20 Soil/Solid (S) 19/06/2024	0.10 - 0.20 Soil/Solid (S) 19/06/2024	0.10 - 0.20 Soil/Solid (S) 19/06/2024	
M	mCERTS accredited.							
aq	Aqueous / settled sample.							
diss,filtr	Dissolved / filtered sample.							
tot.unfilt	Total / unfiltered sample.							
*	Subcontracted - refer to subcontractor report for accreditation status.							
**	% 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							
1-456@	Sample deviation (see appendix)							
Component	LOD/Units	Method						
Dibromofluoromethane**	%	TM116	105	106	113	112	104	
Toluene-d8**	%	TM116	93.5	94	88.3	92.7	95.4	
4-Bromofluorobenzene**	%	TM116	98.8	94.7	87.4	93.4	97.7	
Dichlorodifluoromethane	<0.0005 mg/kg	TM116	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	
Chloromethane	<0.002 mg/kg	TM116	<0.02 #	<0.02 #	<0.02 #	<0.02 #	<0.02 #	
Vinyl Chloride	<0.0005 mg/kg	TM116	<0.005 M	<0.005 M	<0.005 M	<0.005 M	<0.005 M	
Bromomethane	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	
Chloroethane	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	
Trichlorofluoromethane	<0.0005 mg/kg	TM116	<0.005 M	<0.005 M	<0.005 M	<0.005 M	<0.005 M	
1,1-Dichloroethene	<0.0005 mg/kg	TM116	<0.005 #	<0.005 #	<0.005 #	<0.005 #	<0.005 #	
Carbon Disulphide	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	
Dichloromethane	<0.005 mg/kg	TM116	<0.05 #	<0.05 #	<0.05 #	<0.05 #	<0.05 #	
Methyl Tertiary Butyl Ether	<0.0005 mg/kg	TM116	<0.005 M	<0.005 M	<0.005 M	<0.005 M	<0.005 M	
trans-1,2-Dichloroethene	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	
1,1-Dichloroethane	<0.0005 mg/kg	TM116	<0.005 M	<0.005 M	<0.005 M	<0.005 M	<0.005 M	
cis-1,2-Dichloroethene	<0.0005 mg/kg	TM116	<0.005 M	<0.005 M	<0.005 M	<0.005 M	<0.005 M	
2,2-Dichloropropane	<0.001 mg/kg	TM116	<0.01	<0.01	<0.01	<0.01	<0.01	
Bromochloromethane	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	
Chloroform	<0.003 mg/kg	TM116	<0.03 M	<0.03 M	<0.03 M	<0.03 M	<0.03 M	
1,1,1-Trichloroethane	<0.0005 mg/kg	TM116	<0.005 M	<0.005 M	<0.005 M	<0.005 M	<0.005 M	
1,1-Dichloropropene	<0.0005 mg/kg	TM116	<0.005 M	<0.005 M	<0.005 M	<0.005 M	<0.005 M	
Carbontetrachloride	<0.0005 mg/kg	TM116	<0.005 M	<0.005 M	<0.005 M	<0.005 M	<0.005 M	
1,2-Dichloroethane	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	
Benzene	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	
Trichloroethene	<0.001 mg/kg	TM116	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	
1,2-Dichloropropane	<0.0005 mg/kg	TM116	<0.005 M	<0.005 M	<0.005 M	<0.005 M	<0.005 M	
Dibromomethane	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	
Bromodichloromethane	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	
cis-1,3-Dichloropropene	<0.0005 mg/kg	TM116	<0.005 M	<0.005 M	<0.005 M	<0.005 M	<0.005 M	
Toluene	<0.001 mg/kg	TM116	<0.02 M	<0.02 M	<0.015 M	<0.02 M	<0.025 M	
trans-1,3-Dichloropropene	<0.001 mg/kg	TM116	<0.01	<0.01	<0.01	<0.01	<0.01	
1,1,2-Trichloroethane	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	



CERTIFICATE OF ANALYSIS

Validated

SDG: 240621-40
Client Ref.: Fair Oak Express

Report Number: 733158
Location: Fair Oak Express

Superseded Report:

VOC MS (S)

Results Legend			Customer Sample Ref.	SS1	SS2	SS3	SS4	SS5	
#	ISO17025 accredited.	mCERES accredited.							
M	aq	Aqueous / settled sample.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.10 - 0.20 Soil/Solid (S) 19/06/2024 21/06/2024 240621-40 29964164 ES	0.10 - 0.20 Soil/Solid (S) 19/06/2024 21/06/2024 240621-40 29964170 ES	0.10 - 0.20 Soil/Solid (S) 19/06/2024 21/06/2024 240621-40 29964176 ES	0.10 - 0.20 Soil/Solid (S) 19/06/2024 21/06/2024 240621-40 29964181 ES	0.10 - 0.20 Soil/Solid (S) 19/06/2024 21/06/2024 240621-40 29964187 ES	
dis.filt	Total / filtered sample.								
tot.unfilt	Subcontracted - refer to subcontractor report for accreditation status.								
+	% 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								
**	Trigger breach confirmed								
(F)	Sample deviation (see appendix)								
1-466@									
Component	LOD/Units	Method							
1,3-Dichloropropane	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	
Tetrachloroethene	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	
Dibromochloromethane	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	
1,2-Dibromoethane	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	
Chlorobenzene	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	
1,1,1,2-Tetrachloroethane	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	
Ethylbenzene	<0.001 mg/kg	TM116	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	
p/m-Xylene	<0.002 mg/kg	TM116	<0.02 #	<0.02 #	<0.02 #	<0.02 #	<0.02 #	<0.02 #	
o-Xylene	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	
Styrene	<0.002 mg/kg	TM116	<0.02 #	<0.02 #	<0.02 #	<0.02 #	<0.02 #	<0.02 #	
Bromoform	<0.002 mg/kg	TM116	<0.04 M	<0.045 M	<0.05 M	<0.05 M	<0.05 M	<0.045 M	
Isopropylbenzene	<0.002 mg/kg	TM116	<0.02 #	<0.02 #	<0.02 #	<0.02 #	<0.02 #	<0.02 #	
1,1,2,2-Tetrachloroethane	<0.002 mg/kg	TM116	<0.02 #	<0.02 #	<0.02 #	<0.02 #	<0.02 #	<0.02 #	
1,2,3-Trichloropropane	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	
Bromobenzene	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	
Propylbenzene	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	
2-Chlorotoluene	<0.003 mg/kg	TM116	<0.03 M	<0.03 M	<0.03 M	<0.03 M	<0.03 M	<0.03 M	
1,3,5-Trimethylbenzene	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	
4-Chlorotoluene	<0.003 mg/kg	TM116	<0.03 M	<0.03 M	<0.03 M	<0.03 M	<0.03 M	<0.03 M	
tert-Butylbenzene	<0.002 mg/kg	TM116	<0.02 #	<0.02 #	<0.02 #	<0.02 #	<0.02 #	<0.02 #	
1,2,4-Trimethylbenzene	<0.003 mg/kg	TM116	<0.03 #	<0.03 #	<0.03 #	<0.03 #	<0.03 #	<0.03 #	
sec-Butylbenzene	<0.001 mg/kg	TM116	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
4-Isopropyltoluene	<0.002 mg/kg	TM116	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
1,3-Dichlorobenzene	<0.005 mg/kg	TM116	<0.05 M	<0.05 M	<0.05 M	<0.05 M	<0.05 M	<0.05 M	
1,4-Dichlorobenzene	<0.005 mg/kg	TM116	<0.05 M	<0.05 M	<0.05 M	<0.05 M	<0.05 M	<0.05 M	
n-Butylbenzene	<0.003 mg/kg	TM116	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
1,2-Dichlorobenzene	<0.005 mg/kg	TM116	<0.05 M	<0.05 M	<0.05 M	<0.05 M	<0.05 M	<0.05 M	
1,2-Dibromo-3-chloropropane	<0.002 mg/kg	TM116	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	<0.02 M	
Tert-amyl methyl ether	<0.001 mg/kg	TM116	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	
1,2,4-Trichlorobenzene	<0.007 mg/kg	TM116	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	
Hexachlorobutadiene	<0.004 mg/kg	TM116	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	
Naphthalene	<0.008 mg/kg	TM116	<0.08 M	<0.08 M	<0.08 M	<0.08 M	<0.08 M	<0.08 M	



CERTIFICATE OF ANALYSIS

Validated

SDG: 240621-40
Client Ref.: Fair Oak Express

Report Number: 733158
Location: Fair Oak Express

Superseded Report:

Asbestos Identification - Solid Samples

Results Legend

ISO17025 accredited.
M mCERTS accredited.
* Subcontracted test.
(F) Trigger breach confirmed
1-58*\$@ Sample deviation (see appendix)

Subcontracted test. (F) Trigger breach confirmed 1-5&*\$@ Sample deviation (see appendix)		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Asbestos Actinolite	Asbestos Anthophyllite	Asbestos Tremolite	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	SS1ES 0.10 - 0.20 SOLID 19/06/2024 00:00:00 21/06/2024 09:00:00 240621-40 29964164 TM048	25/06/24	Ashia Jackson	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	SS2ES 0.10 - 0.20 SOLID 19/06/2024 00:00:00 21/06/2024 09:00:00 240621-40 29964170 TM048	25/06/24	Ashia Jackson	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	SS3ES 0.10 - 0.20 SOLID 19/06/2024 00:00:00 21/06/2024 09:00:00 240621-40 29964176 TM048	25/06/24	Ashia Jackson	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	SS4ES 0.10 - 0.20 SOLID 19/06/2024 00:00:00 21/06/2024 09:00:00 240621-40 29964181 TM048	25/06/24	Danielle Duncan	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	SS5ES 0.10 - 0.20 SOLID 19/06/2024 00:00:00 21/06/2024 09:00:00 240621-40 29964187 TM048	25/06/24	Ashia Jackson	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected



CERTIFICATE OF ANALYSIS

Validated

SDG: 240621-40
Client Ref.: Fair Oak Express

Report Number: 733158
Location: Fair Oak Express

Superseded Report:

Table of Results - Appendix

Method No	Description
TM089	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM151	Determination of Hexavalent Chromium using Kone analyser
TM181	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM048	Identification of Asbestos in Bulk Material
TM218	The determination of PAH in soil samples by GC-MS
TM222	Determination of Hot Water Soluble Boron in Soils (10:1 Water:Soil) by ICP OES.
TM157	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone
TM414	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID
PM024	Soil preparation including homogenisation, moisture, screens of soils for Asbestos Containing Material
TM116	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	ELTRA CS800 Operators Guide

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).



CERTIFICATE OF ANALYSIS

Validated

SDG: 240621-40
Client Ref.: Fair Oak Express

Report Number: 733158
Location: Fair Oak Express

Superseded Report:

Test Completion Dates

Lab Sample No(s)	29964164	29964170	29964176	29964181	29964187
Customer Sample Ref.	SS1	SS2	SS3	SS4	SS5
AGS Ref.	ES	ES	ES	ES	ES
Depth	0.10 - 0.20	0.10 - 0.20	0.10 - 0.20	0.10 - 0.20	0.10 - 0.20
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Asbestos ID in Solid Samples	25-Jun-2024	25-Jun-2024	25-Jun-2024	25-Jun-2024	25-Jun-2024
Boron Water Soluble	26-Jun-2024	26-Jun-2024	26-Jun-2024	26-Jun-2024	26-Jun-2024
EPH CWG GC (S)	26-Jun-2024	26-Jun-2024	26-Jun-2024	26-Jun-2024	28-Jun-2024
GRO by GC-FID (S)	24-Jun-2024	24-Jun-2024	24-Jun-2024	24-Jun-2024	25-Jun-2024
Hexavalent Chromium (s)	25-Jun-2024	25-Jun-2024	25-Jun-2024	25-Jun-2024	25-Jun-2024
Metals in solid samples by OES	27-Jun-2024	26-Jun-2024	27-Jun-2024	26-Jun-2024	26-Jun-2024
PAH by GCMS	26-Jun-2024	26-Jun-2024	26-Jun-2024	26-Jun-2024	26-Jun-2024
Sample description	21-Jun-2024	21-Jun-2024	21-Jun-2024	21-Jun-2024	21-Jun-2024
Semi Volatile Organic Compounds	26-Jun-2024	26-Jun-2024	26-Jun-2024	26-Jun-2024	27-Jun-2024
Total Organic Carbon	28-Jun-2024	27-Jun-2024	27-Jun-2024	27-Jun-2024	27-Jun-2024
TPH CWG GC (S)	26-Jun-2024	26-Jun-2024	26-Jun-2024	26-Jun-2024	28-Jun-2024
VOC MS (S)	25-Jun-2024	25-Jun-2024	25-Jun-2024	25-Jun-2024	25-Jun-2024



CERTIFICATE OF ANALYSIS

Validated

SDG: 240621-40
Client Ref.: Fair Oak Express

Report Number: 733158
Location: Fair Oak Express

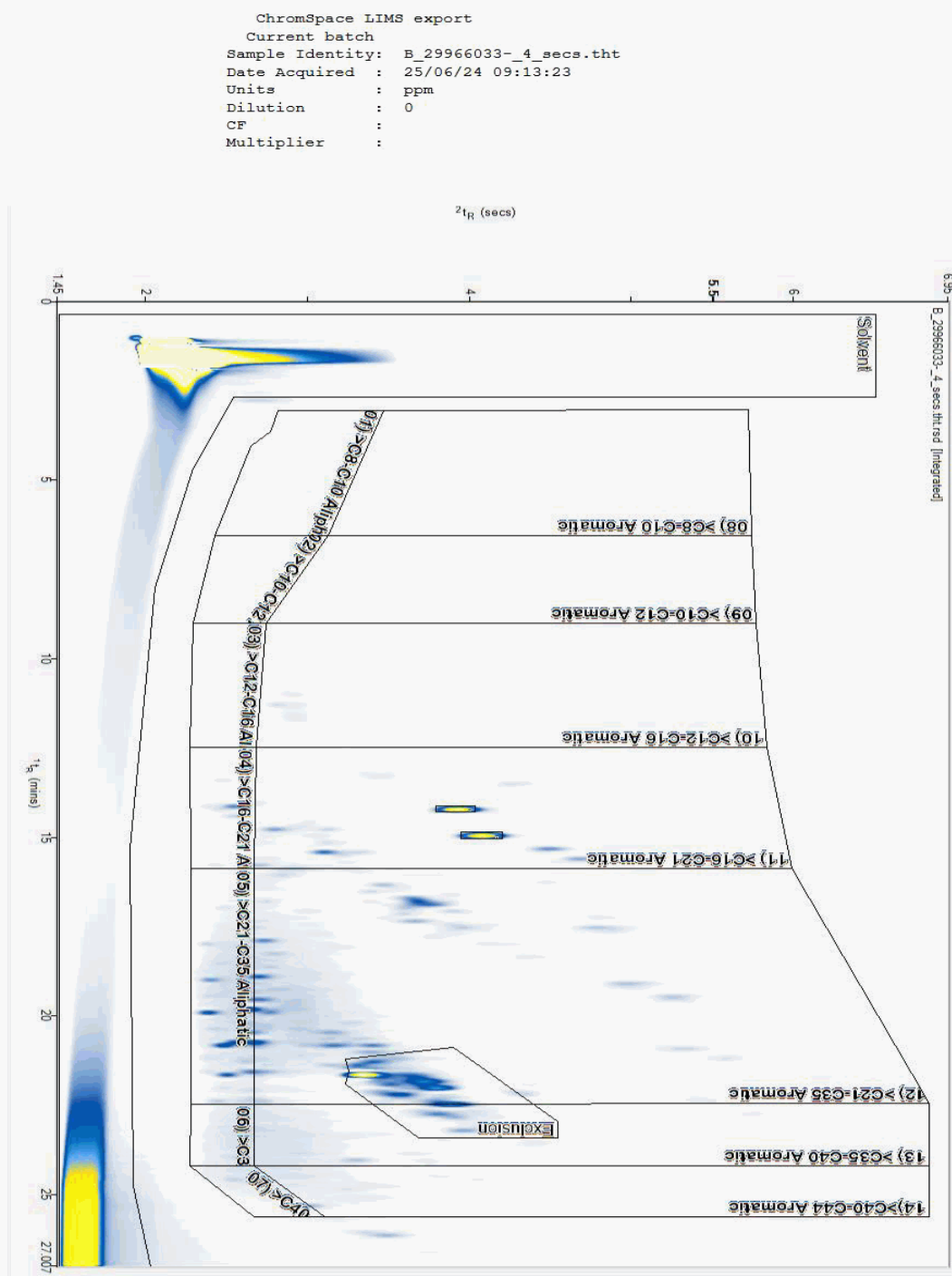
Superseded Report:

Chromatogram

Analysis: EPH CWG GC (S)

Sample No : 29966033
Sample ID : SS2

Depth : 0.10 - 0.20





CERTIFICATE OF ANALYSIS

Validated

SDG: 240621-40
Client Ref.: Fair Oak Express

Report Number: 733158
Location: Fair Oak Express

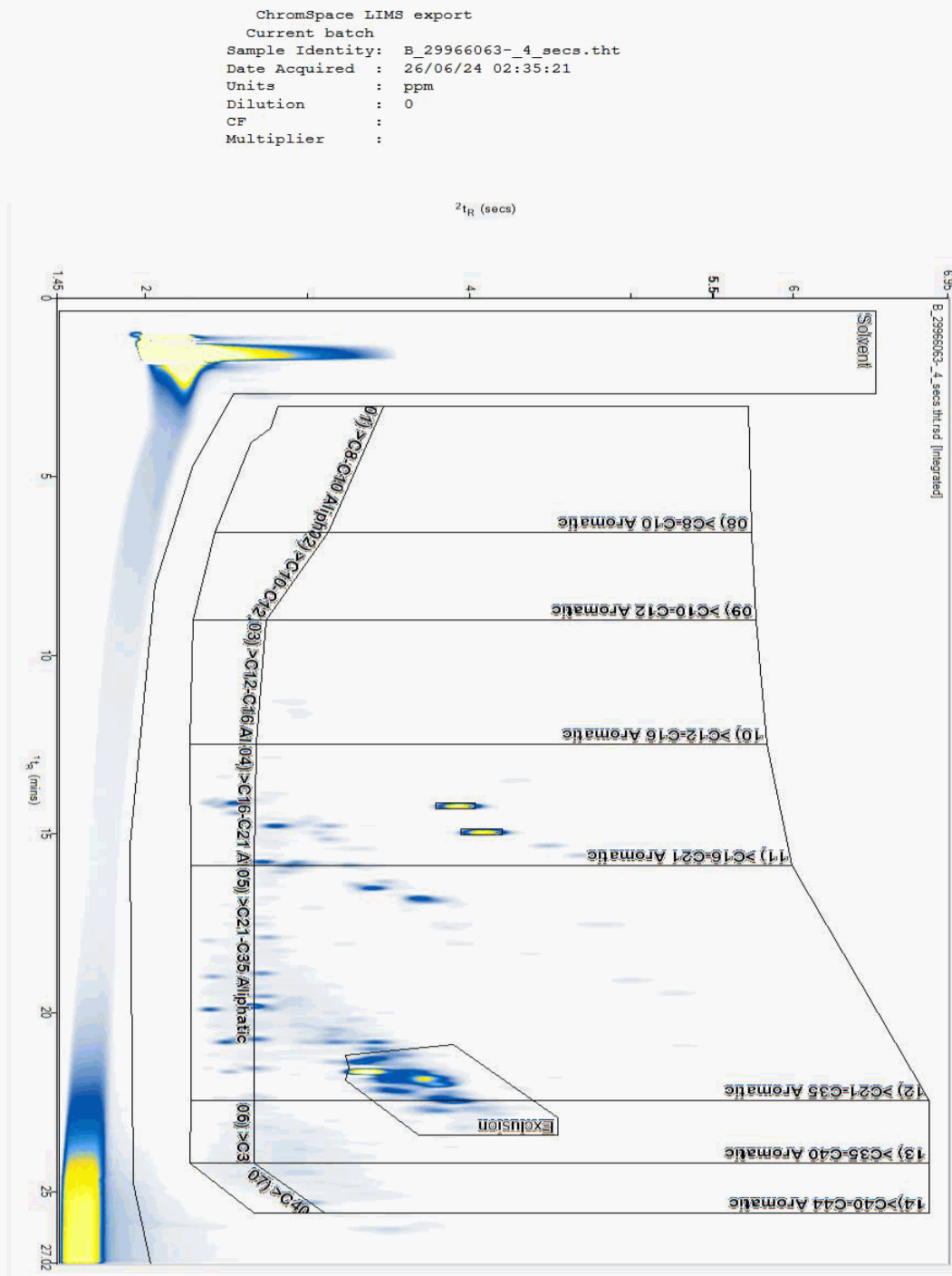
Superseded Report:

Chromatogram

Analysis: EPH CWG GC (S)

Sample No : 29966063
Sample ID : SS4

Depth : 0.10 - 0.20





CERTIFICATE OF ANALYSIS

Validated

SDG: 240621-40
Client Ref.: Fair Oak Express

Report Number: 733158
Location: Fair Oak Express

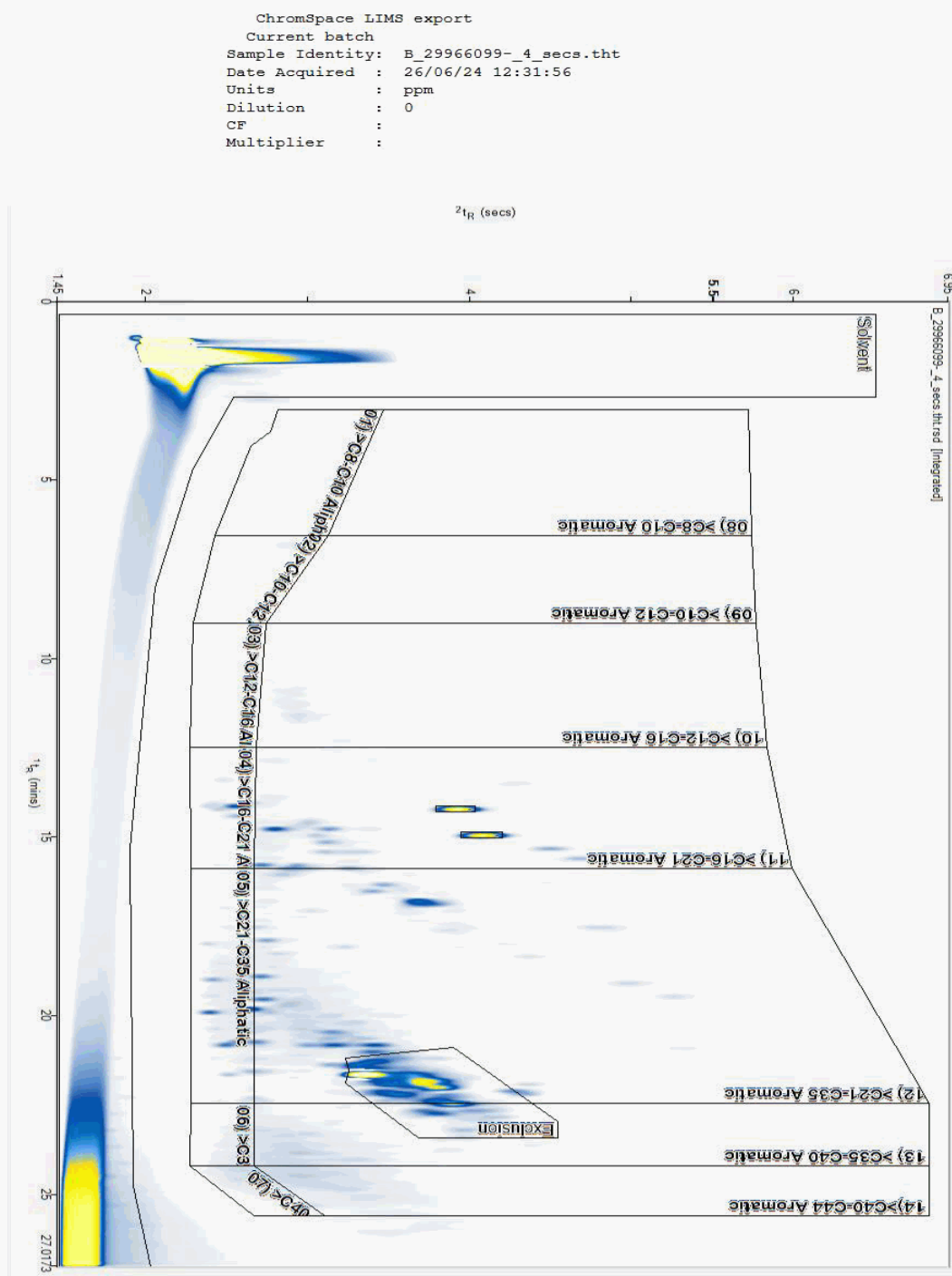
Superseded Report:

Chromatogram

Analysis: EPH CWG GC (S)

Sample No : 29966099
Sample ID : SS3

Depth : 0.10 - 0.20





CERTIFICATE OF ANALYSIS

Validated

SDG: 240621-40
Client Ref.: Fair Oak Express

Report Number: 733158
Location: Fair Oak Express

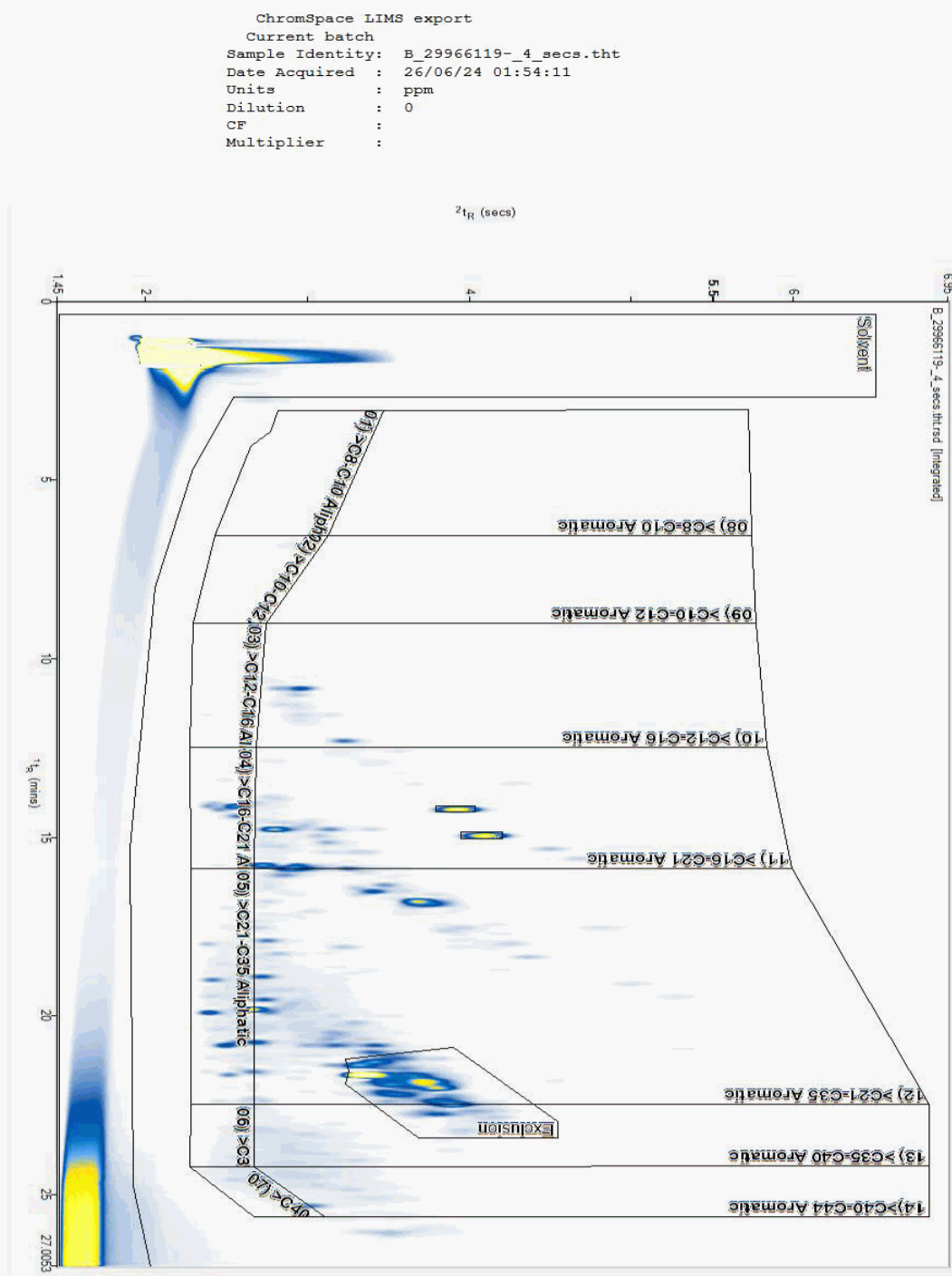
Superseded Report:

Chromatogram

Analysis: EPH CWG GC (S)

Sample No : 29966119
Sample ID : SS1

Depth : 0.10 - 0.20





CERTIFICATE OF ANALYSIS

Validated

SDG: 240621-40
Client Ref.: Fair Oak Express

Report Number: 733158
Location: Fair Oak Express

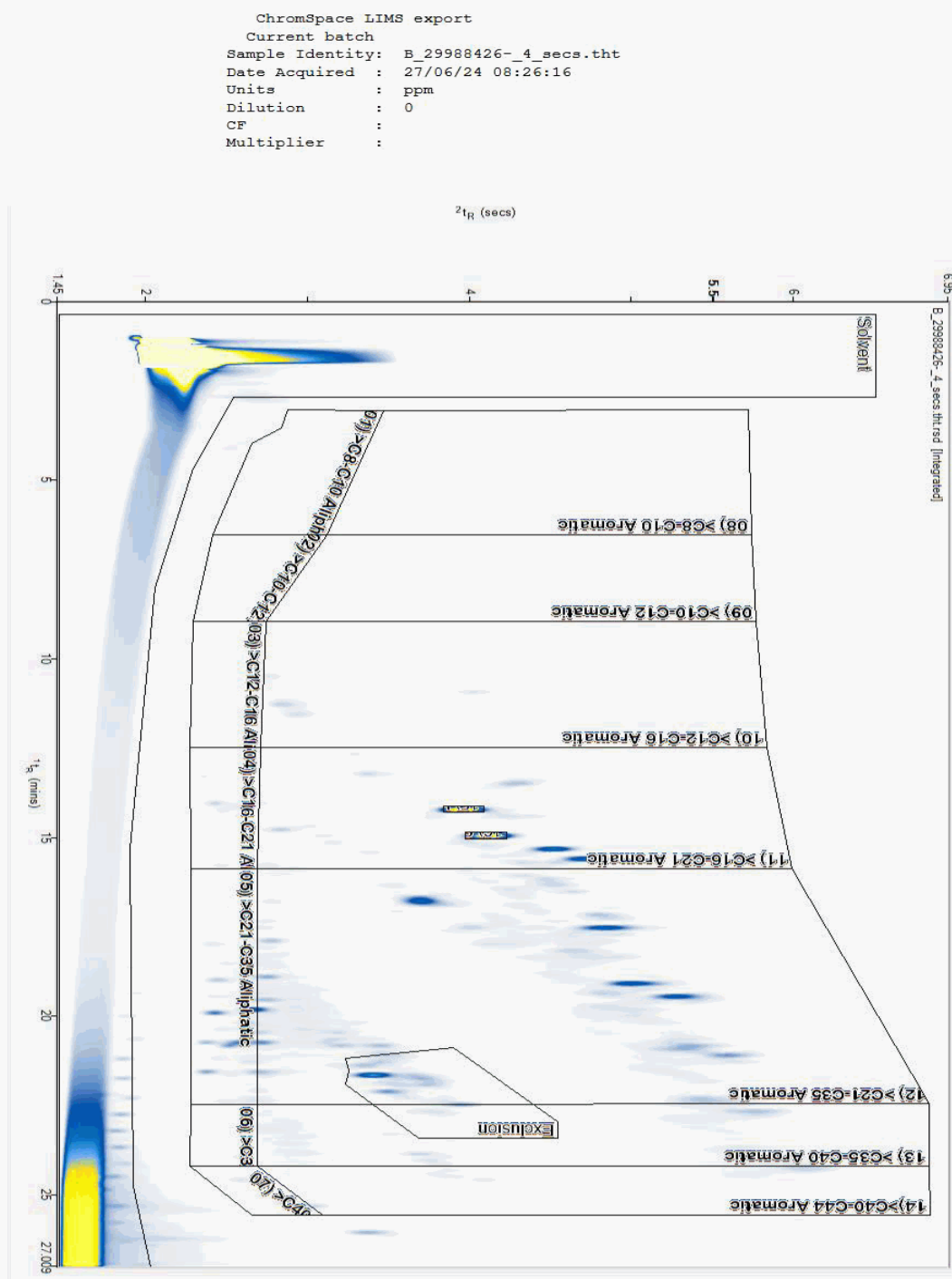
Superseded Report:

Chromatogram

Analysis: EPH CWG GC (S)

Sample No : 29988426
Sample ID : SS5

Depth : 0.10 - 0.20





CERTIFICATE OF ANALYSIS

Validated

SDG: 240621-40
Client Ref.: Fair Oak Express

Report Number: 733158
Location: Fair Oak Express

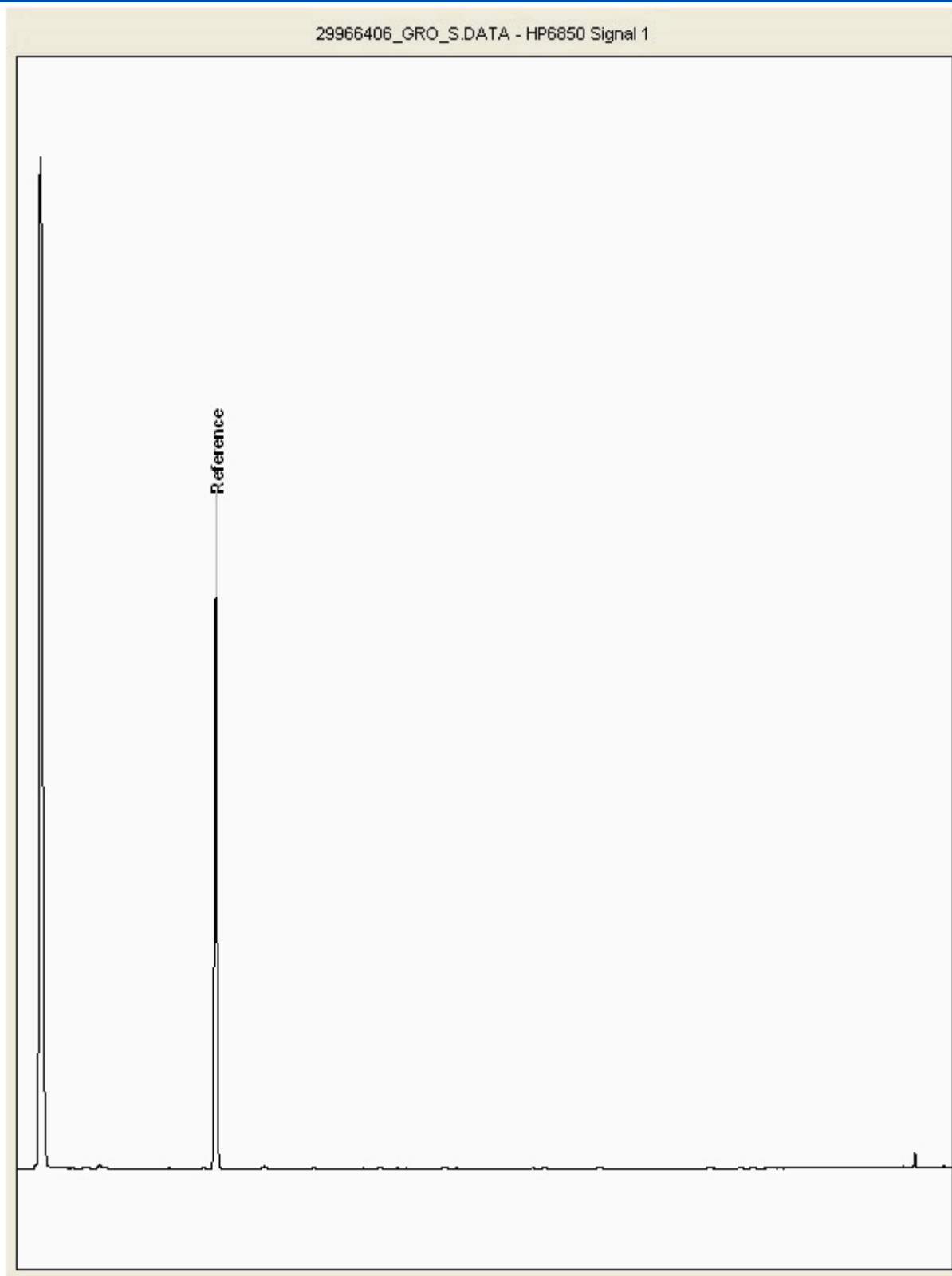
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 29966406
Sample ID : SS1

Depth : 0.10 - 0.20





CERTIFICATE OF ANALYSIS

Validated

SDG: 240621-40
Client Ref.: Fair Oak Express

Report Number: 733158
Location: Fair Oak Express

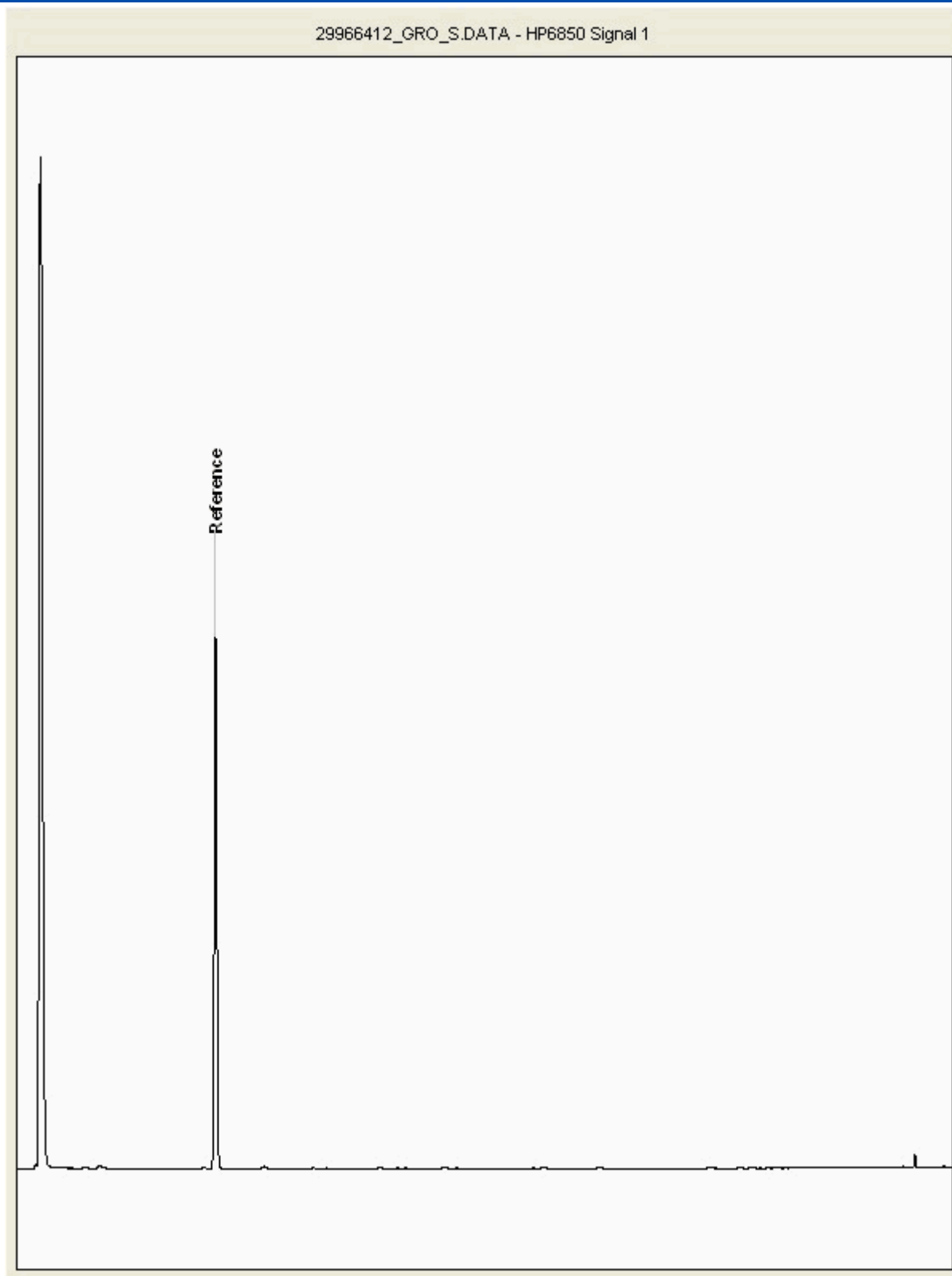
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 29966412
Sample ID : SS3

Depth : 0.10 - 0.20





CERTIFICATE OF ANALYSIS

Validated

SDG: 240621-40
Client Ref.: Fair Oak Express

Report Number: 733158
Location: Fair Oak Express

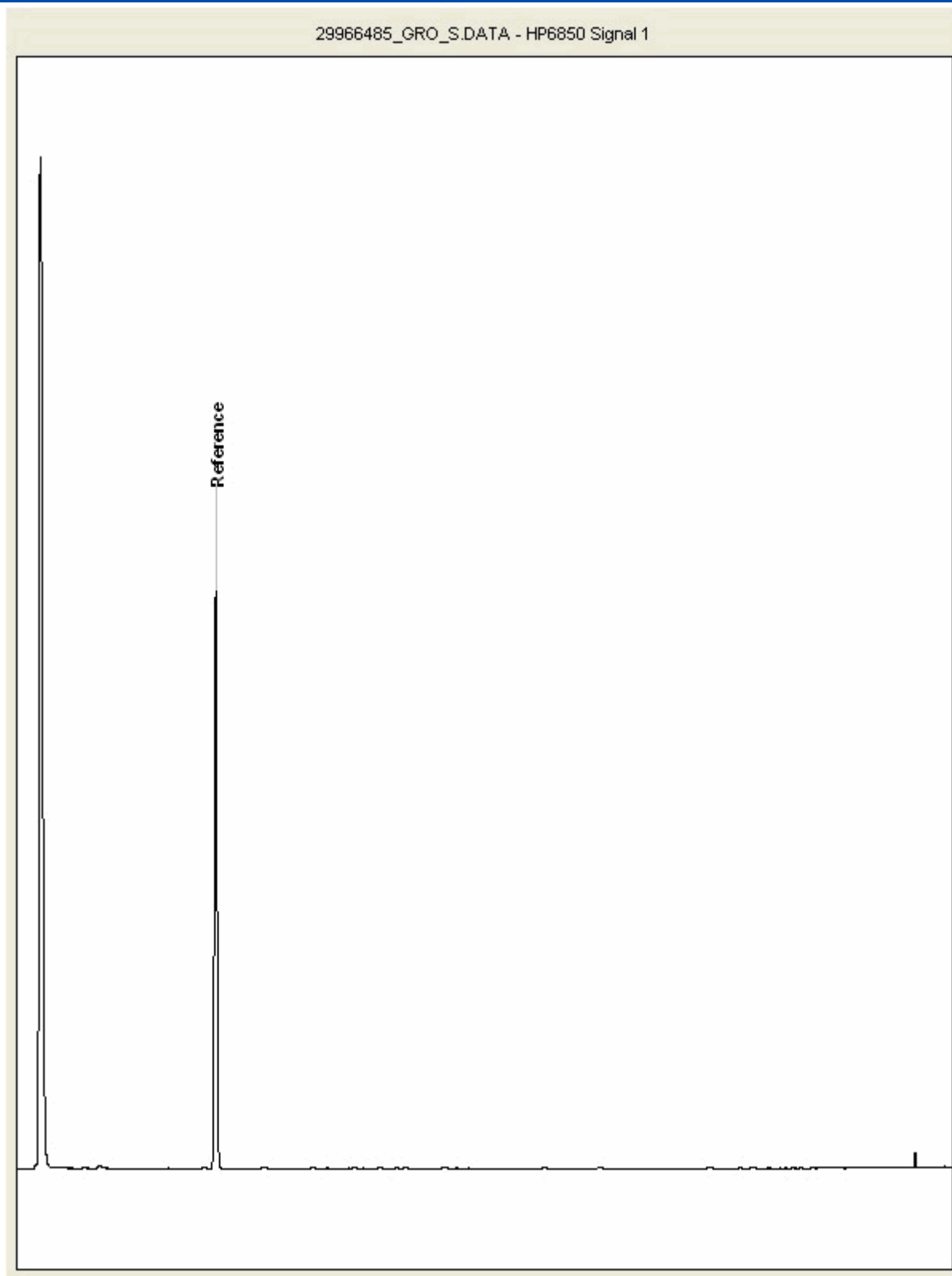
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 29966485
Sample ID : SS2

Depth : 0.10 - 0.20





CERTIFICATE OF ANALYSIS

Validated

SDG: 240621-40
Client Ref.: Fair Oak Express

Report Number: 733158
Location: Fair Oak Express

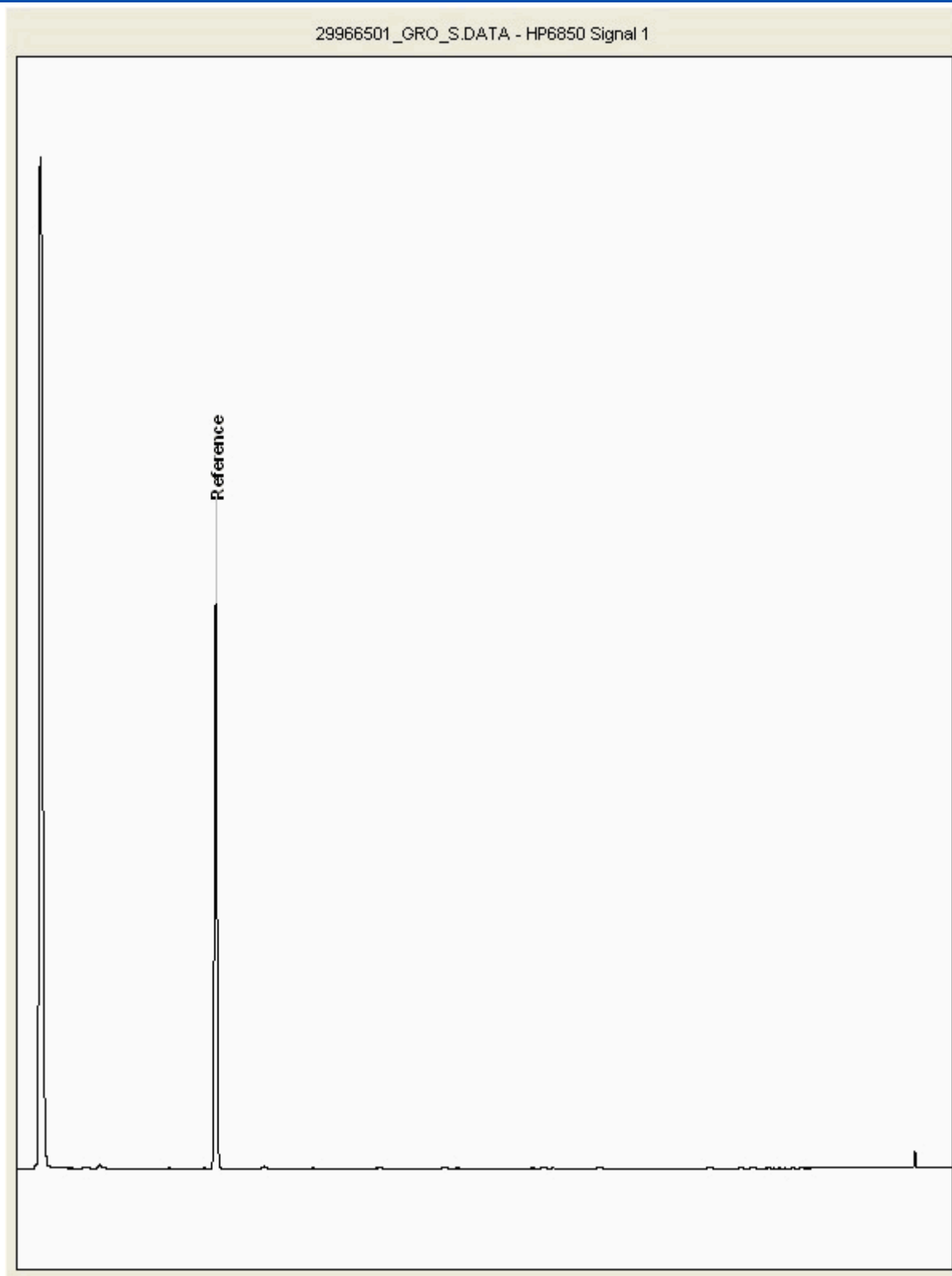
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 29966501
Sample ID : SS4

Depth : 0.10 - 0.20





CERTIFICATE OF ANALYSIS

Validated

SDG: 240621-40
Client Ref.: Fair Oak Express

Report Number: 733158
Location: Fair Oak Express

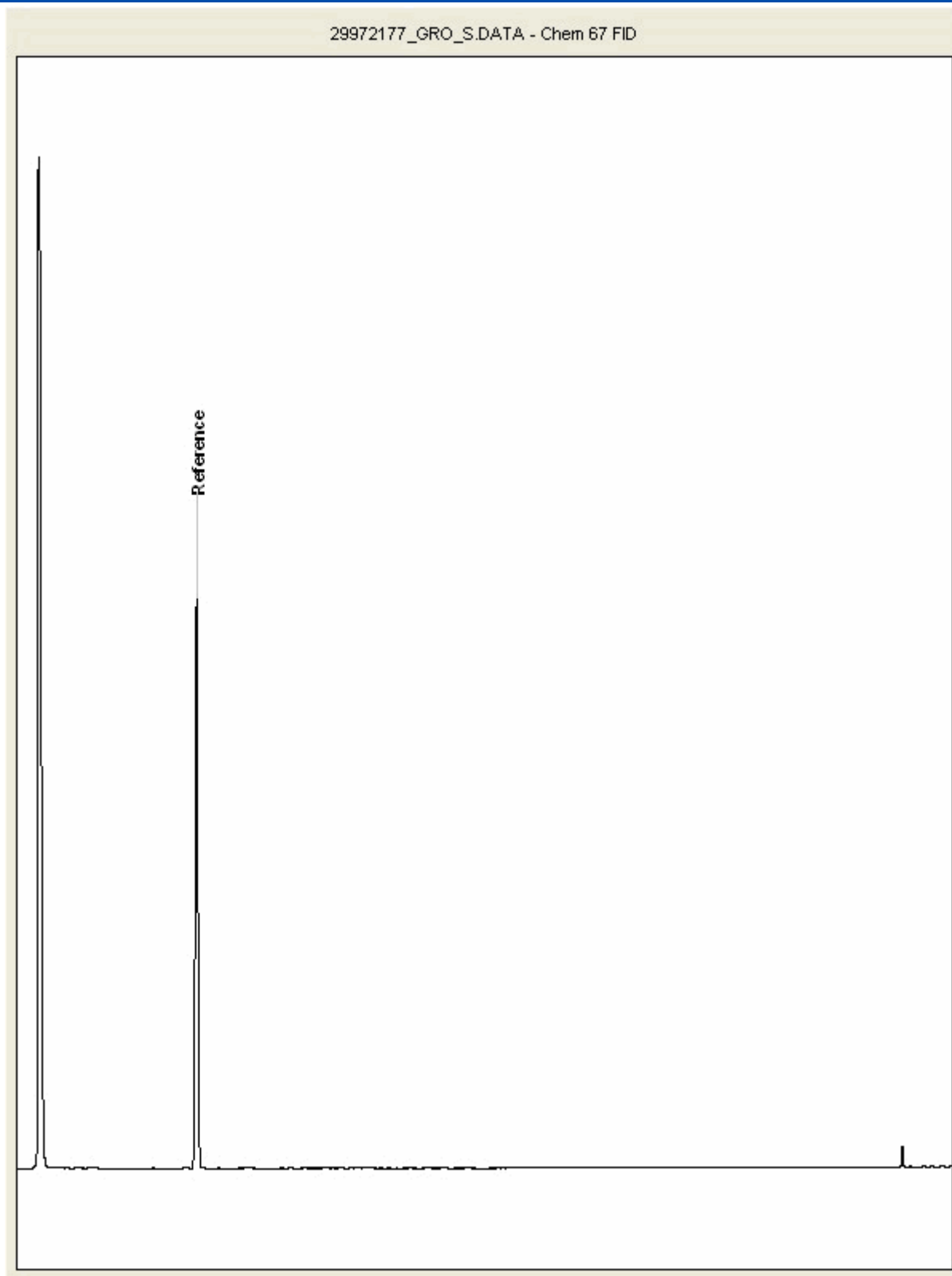
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 29972177
Sample ID : SS5

Depth : 0.10 - 0.20





CERTIFICATE OF ANALYSIS

SDG: 240621-40
Client Ref: Fair Oak Express

Report Number: 733158
Location: Fair Oak Express

Superseded Report:

Appendix

1. Results are expressed on a dry weight basis (dried at 35°C) 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. If sufficient sample is received a sub sample will be retained free of charge for 15 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 15 days 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. ALS reserve the right to charge for samples received and stored but not analysed.

3. 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.

4. 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.

5. 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.

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

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **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%. 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.

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

11. 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.

12. For dried and crushed preparations of soils volatile loss may occur e.g volatile mercury

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. 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.

15. 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 (BTX). 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.

16. 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.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. Sample Deviations

If a sample is classed as deviated then the associated results may be compromised.

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Matrix interference
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to late arrival of instructions or samples
§	Sampled on date not provided

20. Asbestos

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 (2021), 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 (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials and soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

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 ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

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.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

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.