Solving complex	1 Group	991	WASTE TRANSF CONSIGNMENT	VEYANCE ON YELE N ER ON YELE N ON YELE N ON YELE N ON YELE N ON YELE N
A1 – Note Code: 🍽 🔺	/ 3275	8		
PART A – Notification Details A2 – Address of Transfer / Co Shell blackho Postcode: TW9 1% A3 – Premises Code A5 – Current Holder/ Produc	Ilection Point (Site):	erial — Transferor	– Name & Address of Destina Postcode: Permit/Exemption No:	tion: IOA HSBRUSH
Toureen Group, 25 Cecil Rd.	Wealdstone, HA3 5Q	Y. tel: 020 8424 7998	1	
PART B – Description of Wast	e / Material 📕 🌒 🛦 Martes			17 01 01
B1 – Process giving rise to the	waste:	verturi	B2 – SIC Code:	
42.99/0 Civil Engineering 42.22/0 Infrastructure/Utili	41.20/1 Comm ities 39.00/0 Reme	nercial Building diation/Waste Recycling	41.20/2 Residential Building 42.11/0 Groundwork's	43.11/0 Demolition 42.13/0 Tunnelling
B3 – EWC Code & Descriptio	on of Waste/Original \	Waste Material 🛯 🔍		
17 05 04 – Clean/Inert mud 17 01 02 – Brick 17 02 01 – Timber/Wood 17 01 03 – Tiles & Ceramic	ck 17 05 04 – Nor 17 01 07 – Der 17 02 03 – Plat s 13 05 07 – Oily	n-Hazardous muck mo Rubble stics y Water	17 05 03 – Hazardous muck 17 09 04 – Mixed Con. Waste 17 02 02 – Glass 17 06 05 – Asbestos Containing M	/ 17 01 01 – Concrete 17 03 02 – Tarmac 17 06 04 – Insulation 17 04 07 – Mixed Met
Classification of Waste/Reco	vered Material: ا 🌒	us	Hazardous	
The Concentration of Chemi Hazard Codes	cals/Biological compo	onent of concern:		
B4 – If the "waste" material h	as been recycled/treat Type II	ted please identify to 6F2	what specification it conforms 6F3 Other (2 🔺 State)
B5 – How is the Waste Transp	orted: No./weight/vol	lume if applicable:	FALLIN OR TICK BELOW	
Articulated Lanue	Tipper (20 Ton)			
Articulated Lorry	/ . I-I	Grab (16 Ton)	Tanker	Drum/IBC/1 Ton B
RO/RO 40 Yd Bin	20 Yd Skip	Grab (16 Ton) 16 Yd Skip	Tanker 12 Yd Skip	Drum/IBC/1 Ton B 8 Yd Skip
RO/RO 40 Yd Bin 8 Yd Skip	20 Yd Skip 6 Yd Skip	Grab (16 Ton) 16 Yd Skip Mini Skip	Tanker 12 Yd Skip Other (State)	Drum/IBC/1 Ton B 8 Yd Skip
PART C – Carriers Certificate Certify that I today collected the or At and B3 are correct and I have be requirements. Company name:	20 Yd Skip 6 Yd Skip onsignment and that the d een advised of any special fear gforward Soly CB/Am334 CB/Am334 Time:	Grab (16 Ton) 16 Yd Skip Mini Skip PART D I certify t is register measures and the c C T4-S C Name: Signatu Date:	Tanker 12 Yd Skip Other (State) - Consignor's Certificate at the information completed in A, E red or exempt and was advised of the All of the waste/recovered material arrier has been advised of any specia that I have fulfilled my duty to apply n 12 of the Waste (England & Wales) - MARTM re: • A MARTM re: • A Og/12/15-	Drum/IBC/1 Ton B 8 Yd Skip and C is correct, that the carr appropriate precautionary is packaged and labelled corre I handling requirements. the waste hierarchy as require regulations 2011
PART C – Carriers Certificate certify that I today collected the or Address: Postcode: Driver Name: Signature: Date: Company consistence for Postcode: Date: Date: Date: Company consistence for Postcode: Date: Date: Company consistence for Postcode: Date: Date: Company consistence for Postcode: Date: Date: Company consistence for Postcode: Date: Date: Company consistence for Postcode: Company consistence for Postcode: Company consistence for Postcode: Company consistence for Postcode: Date: Company consistence for Postcode: Company consistence for Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode: Postcode:	20 Yd Skip 6 Yd Skip onsignment and that the d een advised of any special rean group So y CB/Am334 Time:	Grab (16 Ton) 16 Yd Skip Mini Skip PART D I certify t is register measurer and the c C T4-S C Name: Signatu Date:	Tanker 12 Yd Skip Other (State) - Consignor's Certificate hat the information completed in A, E red or exempt and was advised of the All of the waste/recovered material arrier has been advised of any specia that I have fulfilled my duty to apply n 12 of the Waste (England & Wales) A MARTM re: A MARTM re: A MARTM	Drum/IBC/1 Ton B 8 Yd Skip and C is correct, that the carr appropriate precautionary is packaged and labelled corre I handling requirements. the waste hierarchy as require regulations 2011
PART C – Carriers Certificate Certify that I today collected the co At and B3 are correct and I have be requirements. Company name: A Tour Address: A 2.5 Certificate Postcode: A HA3 Waste Carriers Licence No: A Vehicle Registration: A Driver Name: A Signature: A Date: A D9/11/15 PART E – Consignee's Certificate Quantity Received (tons)	20 Yd Skip 6 Yd Skip onsignment and that the d een advised of any special fear group Soy CB/Am334 Time: CA Time: CA Time: CA	Grab (16 Ton) 16 Yd Skip Mini Skip PART D I certify t is register measures and the c C T4-S C Name: Signatu Date:	Tanker 12 Yd Skip Other (State) - Consignor's Certificate hat the information completed in A, B red or exempt and was advised of the All of the waste/recovered material arrier has been advised of any specia that I have fulfilled my duty to apply n 12 of the Waste (England & Wales) - Man The Man The Man The Waste Management	Drum/IBC/1 Ton B 8 Yd Skip and C is correct, that the carr appropriate precautionary is packaged and labelled correct handling requirements. the waste hierarchy as require regulations 2011
PART C – Carriers Certificate certify that I today collected the co Address: Company name: Company name: Company name: Company name: Address: Company name: Address: Company name: Address: Company name: Address: Company name: Address: Company name: Address: Company name: Address: Company name: Address: Address: Company name: Address: Address: Company name: Address: Address: Company name: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Address: Addres	20 Yd Skip 6 Yd Skip onsignment and that the d een advised of any special fear group Ge/An334 CB/An334 CB/An334 Time: ••• Time: ••• Time: •••	Grab (16 Ton) 16 Yd Skip Mini Skip PART D I certify t is register measures and the c C T4-S C Name: Signatu Date: NO ailed in A4 on – Date	Tanker 12 Yd Skip Other (State) - Consignor's Certificate other (State) - Consignor's Certificate - Consignor's Certi	Drum/IBC/1 Ton B 8 Yd Skip and C is correct, that the carr appropriate precautionary is packaged and labelled correct handling requirements. the waste hierarchy as require regulations 2011 Fime:
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*** White copy: Head Office

x

Blue copy: Haulier

Yellow copy: Waste facility

Pink copy: PC/site ***

Solving complex of	Group		MATERIAL CONV WASTE TRANSFE CONSIGNMENT	VEYANCE Image: Control Fill in WRTS Image: Control Fill in WRTS WITH THIS SWIEDLE Image: Control Fill in WRTS WITH THIS SWIEDLE Image: Control Fill in WRTS WITH THIS SWIEDLE Image: Control Fill in WRTS WITH THIS SWIEDLE
A1 – Note Code: ا 🔍	/ 32777			
PART A – Notification Details A2 – Address of Transfer / Colle Sull Black Postcode: Tweet 1 × D A3 – Premises Code	ection Point (Site):	A4	- Name & Address of Destinat	tion: IOA
A5 – Current Holder/ Produce	er of the Waste Material –	- Transferor	•	
Toureen Group, 25 Cecil Rd. W PART B – Description of Waste	Vealdstone, HA3 5QY. tel: (/ Material	020 8424 7998		
B1 – Process giving rise to the v	vaste: 🚺 Excent	tier	B2 – SIC Code:	70101
42.99/0 Civil Engineering 42.22/0 Infrastructure/Utiliti	41.20/1 Commercial E 39.00/0 Remediation/	Building /Waste Recycling	41.20/2 Residential Building 42.11/0 Groundwork's	43.11/0 Demolition 42.13/0 Tunnelling
B3 – EWC Code & Description	of Waste/Original Waste	Material		1
17 05 04 – Clean/Inert muck 17 01 02 – Brick 17 02 01 – Timber/Wood 17 01 03 – Tiles & Ceramics	17 05 04 – Non-Hazard 17 01 07 – Demo Rubi 17 02 03 – Plastics 13 05 07 – Oily Water	dous muck ble	17 05 03 – Hazardous muck 17 09 04 – Mixed Con. Waste 17 02 02 – Glass 17 06 05 – Asbestos Containing Ma	17 01 01 – Concrete 17 03 02 – Tarmac 17 06 04 – Insulation at. 17 04 07 – Mixed Metals
Classification of Waste/Recover	ered Material: IOA Non-Hazardous		Hazardous	
The Concentration of Chemic: Hazard Codes	als/Biological component	of concern:		
B4 – If the "waste" material has	s been recycled/treated ple ype II 6F2	ease identify to	what specification it conforms? 6F3 Other (S	🔺 itate)
B5 – How is the Waste Transpo	rted: No./weight/volume if	f applicable:		
	recontrictly trailoud retained	applicable.		
Articulated Lorry	Tipper (20 Ton)	Grab (16 Ton)	FILLIN OR TICK BELOW	Drum/IBC/1 Ton Bag
Articulated Lorry RO/RO 40 Yd Bin	Tipper (20 Ton) 20 Yd Skip	Grab (16 Ton) 16 Yd Skip	FRLIN OR TICKBELOW Tanker 12 Yd Skip	Drum/IBC/1 Ton Bag 8 Yd Skip
Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip	Tipper (20 Ton) 20 Yd Skip 6 Yd Skip	Grab (16 Ton) 16 Yd Skip Mini Skip	Tanker 12 Yd Skip Other (State)	Drum/IBC/1 Ton Bag 8 Yd Skip
Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip PART C – Carriers Certificate I certify that I today collected the con A4 and B3 are correct and I have bee requirements. Company name: A Tow Address: A 25 Correct Address: A 25 Correct Name: A 25 Correct Company name: A 70% Address: A 25 Correct Company name: A 70% Address: A 25 Correct Diver Name: A 25 Correct Signature: A 25 Correct Correct and I have bee Correct and I have bee Requirements. Requirements. Company name: A 70% Correct and I have bee Correct and I have bee Correct and I have bee Requirements. Company name: A 70% Correct and I have bee Correct and I have bee Correct and I have bee Requirements. Company name: A 70% Correct and I have bee Correct and	Tipper (20 Ton) 20 Yd Skip 6 Yd Skip signment and that the details in n advised of any special handling organ plant C6/RE 5985 TT 14 KVC	Grab (16 Ton) 16 Yd Skip Mini Skip PART D I certify th is register measures and the ca I confirm Regulatio Name: Signatur Date:	Texing or Received Tanker Tanker T2 Yd Skip Other (State) - Consignor's Certificate of the information completed in A, B ed or exempt and was advised of the All of the waste/recovered material i arrier has been advised of any special that I have fulfilled my duty to apply t n 12 of the Waste (England & Wales) re:	Drum/IBC/1 Ton Bag 8 Yd Skip and C is correct, that the carrier appropriate precautionary is packaged and labelled correct handling requirements. he waste hierarchy as required b regulations 2011
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Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip PART C – Carriers Certificate I certify that I today collected the con A4 and B3 are correct and I have beer requirements. Company name: A Tow Address: A 25 Course Postcode: A 143 5 C Waste Carriers Licence No: A Vehicle Registration: A 24 Driver Name: A CHRIS Signature: A 15/01116 PART E – Consignee's Certific Quantity Received (tons) A I received this waste/material I confirm the Vehicle Registra Where waste/material is reject I certify that waste/material re authorises the management/r	Tipper (20 Ton) 20 Yd Skip 6 Yd Skip signment and that the details in n advised of any special handling ColfRE 598 5 TT ColfRE 598 5 TT	Grab (16 Ton) 16 Yd Skip Mini Skip PART D I certify th is register measures and the ca I confirm Regulatio Name: Signatur Date: I in B5 and Part peration number rial described i	Tanker Tanker 12 Yd Skip Other (State) - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certificate - Consignor's Certifi	Drum/IBC/1 Ton Bag 8 Yd Skip and C is correct, that the carrier appropriate precautionary is packaged and labelled correcth handling requirements. he waste hierarchy as required b regulations 2011 ime:

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Blue copy: Haulier

Yellow copy: Waste facility

Pink copy: PC/site ***

W	ASTE / MATERIA	AL TRACK	ING NOTE	Emf 18.2
Toureen Solving complex cha	Group Ilenges since 1991	VOE EREGISEAT NO.	MATERIAL CONVEY WASTE TRANSFER CONSIGNMENT	ANCE ONLY FILL IN PARTS WITH THIS SYMBOL ONLY FILL IN PARTS WITH THIS SYMBOL WITH THIS SYMBOL
A1 – Note Code:	32765			
PART A – Notification Details A2 – Address of Transfer / Collect Shall Bucklers Postcode: Tw9 1 X D A3 – Premises Code A5 – Current Holder/ Producer of Toureen Group, 25 Cecil Rd, Wet	on Point (Site):	A4 – Name Day Postco Permit Isferor 424 7998	& Address of Destination Group Breweyer de: :/Exemption No: IO EP	: •••
PART B – Description of Waste / N				
B1 – Process giving rise to the was		В	2 – SIC Code:	
42.99/0 Civil Engineering 42.22/0 Infrastructure/Utilities	41.20/1 Commercial Buildin 39.00/0 Remediation/Waste	g 41.20/2 e Recycling 42.11/0	2 Residential Building) Groundwork's	43.11/0 Demolition 42.13/0 Tunnelling
B3 – EWC Code & Description of	Waste/Original Waste Mate	erial I ()	ow	
 17 05 04 - Clean/Inert muck 17 01 02 - Brick 17 02 01 - Timber/Wood 17 01 03 - Tiles & Ceramics 	17 05 04 – Non-Hazardous n 17 01 07 – Demo Rubble 17 02 03 – Plastics 13 05 07 – Oily Water	nuck 17 05 0 17 09 0 17 02 0 17 06 0	13 – Hazardous muck 14 – Mixed Con. Waste 12 – Glass 15 – Asbestos Containing Mat.	 17 01 01 – Concrete 17 03 02 – Tarmac 17 06 04 – Insulation 17 04 07 – Mixed Metals
Classification of Waste/Recover	ed Material: IOA Non-Hazardous	Hazard	dous	
Hazard Codes B4 – If the "waste" material has b Type I Typ B5 – How is the Waste Transport Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip	een recycled/treated please i e II 6F2 ed: No./weight/volume if app Tipper (20 Ton) Grat 20 Yd Skip 16 Y 6 Yd Skip Min	dentify to what spe 6F3 licable: IOA railworth o (16 Ton) d Skip i Skip	Conforms? Other (State Tanker 12 Yd Skip Other (State)	e) Drum/IBC/1 Ton Bag 8 Yd Skip
PART C – Carriers Certificate	gnment and that the details in A2, advised of any special handling Group LB/9C5939K6. 0609A4 	PART D - Consi I certify that the infi is registered or exer measures. All of the and the carrier has I confirm that I have Regulation 12 of the Name: Signature: Date: A	gnor's Certificate	d C is correct, that the carrier propriate precautionary ackaged and labelled correctly ndling requirements. waste hierarchy as required by ulations 2011
Quantity Received (tons)	Material/Waste Acce	oted 📕 🌑 📥	Waste Management Op	peration (R or D Code) [🌑
I received this waste/material	at the address detailed in A4	on – Date:	Tim YES NO	ne: 🚺 🛋
Where waste /material is rejecte	d: please provide details:		IF NO PLEASE PRO	SVIDE DETAILS
I certify that waste/material re authorises the management/re	use permit/exemption opera eccipt of the waste/material	tion number/refer described in B at th	rence: IOA he address given in A4.	
Name:	Sig	nature: 📕 🌑 🛦	Date:	
*** White copy: Head Office	Blue copy: Haulier	Yellow o	opy: Waste facility	Pink copy: PC/site ***

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	n Group x challenges since 1991			MATERIAL CONVE WASTE TRANSFER CONSIGNMENT	YANCE CALL IN PAR WITH THIS SYMBO ONLY FILL IN PAR WITH THIS SYMBO ONLY FILL IN PAR WITH THIS SYMBO
A1 – Note Code: 🍽 🔺	/ 32764				
PART A – Notification Detai A2 – Address of Transfer / C Shall Black Postcode: Tw9 IX A3 – Premises Code A5 – Current Holder/ Produ	Is A VARIES ollection Point (Site):	— Transfero	A4 – Nar Do Pos Per or 7998	ne & Address of Destination tcode: mit/Exemption No: •• E	on: ■●▲ PR/CB3630RP °
PART B – Description of Wa	ste / Material				
B1 – Process giving rise to th	e waste:	tw		B2 – SIC Code:	
42.99/0 Civil Engineering 42.22/0 Infrastructure/U	41.20/1 Commercia tilities 39.00/0 Remediatio	ll Building on/Waste Recy	41.2 cling 42.1	20/2 Residential Building 11/0 Groundwork's	43.11/0 Demolition 42.13/0 Tunnelling
B3 – EWC Code & Descript 17 05 04 – Clean/Inert m 17 01 02 – Brick 17 02 01 – Timber/Wood 17 01 03 – Tiles & Ceram	ion of Waste/Original Wast uck 17 05 04 – Non-Haz 17 01 07 – Demo Ri 17 02 03 – Plastics ics 13 05 07 – Oily Wat	e Material ardous muck ubble er	PALINOR T 17 (17 (17 (17 (сханом 05 03 — Hazardous muck 09 04 — Mixed Con. Waste 02 02 — Glass 06 05 — Asbestos Containing Mat.	17 01 01 – Concrete 17 03 02 – Tarmac 17 06 04 – Insulation . 17 04 07 – Mixed Metal
Classification of Waste/Red	covered Material:		- Ha	zardous	
B5 – How is the Waste Trans Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip	sported: No./weight/volume /Tipper (20 Ton) 20 Yd Skip 6 Yd Skip	e if applicabl Grab (16 16 Yd Ski Mini Skip	e: ION Ton) p	Tanker 12 Yd Skip Other (State)	Drum/IBC/1 Ton Ba 8 Yd Skip
PART C – Carriers Certifica I certify that I today collected the A4 and B3 are correct and I have requirements.	te I Avantes e consignment and that the detail been advised of any special hand	s in A2, I ce lling is n me and	RTD – Co ertify that the egistered or e easures. All of d the carrier b	nsignor's Certificate	nd C is correct, that the carrie ppropriate precautionary packaged and labelled correc andling requirements.
Company name:)AYGROUP V	l co Reg	onfirm that I l gulation 12 o	nave fulfilled my duty to apply the fulfilled my duty to apply the first field to be apply the first second to be apply the first se	e waste hierarchy as required egulations 2011
Vaste Carriers Licence No: Vehicle Registration:	ADEL DAY SANGON	Na Na	ame: IOA gnature: IO	L marin	
Date:	Time:	Da	ate: 🚺 🔺	14/12/15- Ti	me: 🚺 🌑 🛦
PART E – Consignee's Cer	tificate IOA vories				
Quantity Received (tons)	Material/Wast	e Accepted NO		Waste Management C	Operation (R or D Code)
I received this waste/mate	erial at the address detaile	d in A4 on –	Date:	Ti	me: 📕 🌑 📥
I confirm the Vehicle Regi Where waste/material is re	stration and Type as Detai ejected; please provide detai	led in B5 an ils:	d Part C: 📕	YES NO FIND PLEASE	PROVIDE DETAILS
I certify that waste/mater authorises the manageme	ial reuse permit/exemption ent/receipt of the waste/ma	operation r aterial descr	number/re ribed in B a	ference: IOA t the address given in A4.	
Name:		Signatu	re: 🚺 🔺	Date	e: [@]
White conv. Head Off	ice Blue copy: Hi	aulier	Yellow	v copy: Waste facility	Pink copy: PC/site

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W	ASTE / MATERIA	AL TRAC	KING NOTE	Emf 18
Toureen C	Group		MATERIAL CONVE WASTE TRANSFER CONSIGNMENT	VANCE ORV FILING WITH THE SY ORV FILING WITH THE SY CRAY FILING WITH THE SY
A1 Note Code:				
AI - Note code.	32761			
PART A – Notification Details	VARIES			
A2 – Address of Transfer / Collectic Postcode: A3 – Premises Code A5 – Current Holder/ Producer of	on Point (Site): IOA) the Waste Material — Tran	A4 – Nar Pos Per Isferor	ne & Address of Destination Score & & & & & & & & & & & & & & & & & & &	EPR/CB3630EF
Toureen Group, 25 Cecil Rd. Weal	dstone, HA3 5QY. tel: 020 8	424 7998		
PART B – Description of Waste / M	aterial			
B1 – Process giving rise to the wast	e: Cxcaratin		B2 – SIC Code:	70101
42.99/0 Civil Engineering 42.22/0 Infrastructure/Utilities	41.20/1 Commercial Building 39.00/0 Remediation/Waste	g 41.2 Recycling 42.2	20/2 Residential Building 11/0 Groundwork's	43.11/0 Demolition 42.13/0 Tunnelling
B3 – EWC Code & Description of \	Waste/Original Waste Mate	erial 🚺 🔍		
 17 05 04 - Clean/Inert muck 17 01 02 - Brick 17 02 01 - Timber/Wood 17 01 03 - Tiles & Ceramics 	17 05 04 – Non-Hazardous m 17 01 07 – Demo Rubble 17 02 03 – Plastics 13 05 07 – Oily Water	nuck 17 (17 (17 (17 (17 (ccanow 05 03 – Hazardous muck 09 04 – Mixed Con. Waste 02 02 – Glass 06 05 – Asbestos Containing Mat.	17 01 01 – Concrete 17 03 02 – Tarmac 17 06 04 – Insulation 17 04 07 – Mixed Meta
Classification of Waste/Recovered	Material: IOA Non-Hazardous	Ha	zardous	
B4 – If the "waste" material has be Type I B5 – How is the Waste Transported	en recycled/treated please id I 6F2 I: No./weight/volume if appli	dentify to what 6F3 icable:	specification it conforms? A Other (Sta	nte)
Articulated Lorry	pper (20 Ton) Grab	(16 Ton)	Tanker	Drum/IBC/1 Ton B
RO/RO 40 Yd Bin 20	Yd Skip 16 Yd	d Skip	12 Yd Skip	8 Yd Skip
🖉 8 Yd Skip 👘 6	Yd Skip 🦳 🦳 Mini	Skip	Other (State)	
PART C – Carriers Certificate	Time:	PART D - Coll I certify that the is registered or e measures. All of and the carrier h I confirm that I h Regulation 12 of Name: Signature: Date:	nsignor's Certificate	nd C is correct, that the carr opropriate precautionary packaged and labelled corre andling requirements. e waste hierarchy as require gulations 2011
PART E - Consignee's Cartificate				,
Quantity Received (tons)	Material/Waste Accep	ted 🚺 🗪	Waste Management O	peration (R or D Code
I received this waste/material at	YES NO the address detailed in A4 o	on – Date:	Tir	me:
I confirm the Vehicle Registration	and Type as Detailed in B	5 and Part C:	🔺 YES NO	
Where waste/material is rejected;	please provide details:		IF NO PLEASE P	ROVIDE DETAILS
I certify that waste/material reuse authorises the management/rece	e permit/exemption operati ipt of the waste/material d	ion number/ref escribed in B at	erence: [@] the address given in A4.	
Name:	Sigr	nature:	Date	
*** White copy: Head Office	Blue copy: Haulier		copy: Waste facility	Pink copy: PC/site
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A1 – Note Code:			2 CONSIGNMENT	WITH:
1	32762			
PART A – Notification Details	WARIES	0.4	Nome & Address (D	
Shell blackhorce.	()	<i>.</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Brentevor	on:
Postcode: $TW9 IX0$			Postcode:	1
A5 - Current Holder/ Producer of	the Mester Mester 1		Permit/Exemption No: 📕 🗧	ER/EB JAJORP
Toureen Group 25 Cecil Rd Weel	detena HA2 FOX to hope	ansferor		
PART B - Description of Waste / M	aterial	8424 7998		
B1 – Process giving rise to the waste	HILLIN OR TICK BELOW	A'L	B2 – SIC Code: 🚺 🖉	10101
42.99/0 Civil Engineering 42.22/0 Infrastructure/Utilities	41.20/1 Commercial Buildi	ing	41.20/2 Residential Building	43.11/0 Demolition
B3 – EWC Code & Description of V	Vasto (Original Masta Ma		42.11/0 Groundwork's	42.13/0 Tunnelling
	vaster onginal waste Mat	terial I T	FILL IN OR TICK GELOW	/
17 05 04 – Clean/Inert muck	17 05 04 - Non-Hazardous	muck	17 05 03 – Hazardous muck	17 01 01 - Concrete
17 02 01 - Timber/Wood	17 01 07 - Demo Rubble		17 09 04 – Mixed Con. Waste	17 03 02 – Tarmac
17 01 03 – Tiles & Ceramics	13 05 07 - Oily Water		17 UZ UZ - Glass 17 06 05 - Ashestos Containing Mark	17 06 04 – Insulation
Classification of Waste/Recovered	Material:		Hancarda contraining Mat.	1/0407 – Mixed Me
Clean/Inert	Non-Hazardous		Hazardous	
The Concentration of Chemicals/B	iological component of a	oncern:		
Hazard Codes	orogical component of co	oncern:		
B5 – How is the Waste Transported: Articulated Lorry	No./weight/volume if appl per (20 Ton) Grał	licable: I a	FRLIN ON TICK BLOW	Drum/IBC/1 Ton F
RO/RO 40 Yd Bin 20 Yd	rd Skip 📃 16 Y	d Skip	12 Yd Skip	8 Yd Skip
8 Yd Skip 6 Yd	l Skip 📃 Mini	i Skip	Other (State)	
PART C – Carriers Certificate	iners int and that the details in A2, ad of any special handling	PART D – I certify that is registered measures. A and the carr	Consignor's Certificate	C is correct, that the car ropriate precautionary ackaged and labelled corr dling requirements.
company name:	1	I confirm the	at I have fulfilled my duty to apply the	and the first second second second second
Address:	1000020100	Regulation 1	.2 of the Waste (England & Wales) regu	lations 2011
Address:	DAY DAY	Name:	L MARCE (England & Wales) regu	vaste hierarchy as require ilations 2011
Address: A Postcode: A Waste Carriers Licence No: A Vehicle Registration: A Driver Name: A Signature: A	PESA 39 HE	Name:	L MA 2. M	vaste hierarchy as require llations 2011
Address: A Postcode: A Waste Carriers Licence No: A Vehicle Registration: A Driver Name: A Signature: A Date: A 14/12/15 T	PES9 39 HEB PAY NCEANS ime:	Name:	L M 2. VA L M 2. VA L M 2. VA L M 2. VA L M 2. VA Time	value hierarchy as require ilations 2011
Address: A Postcode: A Waste Carriers Licence No: A Vehicle Registration: A Driver Name: A Signature: A Date: A PART E – Consignee's Certificate	The set of	Name:	2 of the Waste (England & Wales) regul Lun 2.04 Multiple Multiple Control Co	este hierarchy as require
Address: A Postcode: A Waste Carriers Licence No: A Vehicle Registration: A Driver Name: A Signature: A Date: A PART E – Consignee's Certificate A Quantity Received (tons)	Time:	Regulation 1 Name: Signature: Date: Date:	2 of the Waste (England & Wales) regu L M 2.00 14/02/15 Waste Management Op	eration (R or D Code)
Address: A Postcode: A Waste Carriers Licence No: A Vehicle Registration: A Driver Name: A Signature: A Date: A PART E – Consignee's Certificate A Quantity Received (tons) A received this waste/material at the	Time: Material/Waste Accept YES NO address detailed in A4 o	Name: Name: Signature: Date: Date: A	2 of the Waste (England & Wales) regu L VM 2.VM 14/02/15 Time Waste Management Op Time	eration (R or D Code)
Address: A Postcode: A Waste Carriers Licence No: A Vehicle Registration: A Driver Name: A Signature: A Date: A PART E – Consignee's Certificate A Quantity Received (tons) A received this waste/material at the confirm the Vehicle Registration ar	Material/Waste Accept YES NO address detailed in A4 o od Type as Detailed in B5	Regulation 1 Name: Signature: Date: Date: ated A	2 of the Waste (England & Wales) regu L M 277 Mm/ 14/02/15 Waste Management Op Time	eration (R or D Code
Address: A Postcode: A Waste Carriers Licence No: A Vehicle Registration: A Driver Name: A Signature: A Date: A Date: A PART E – Consignee's Certificate A Quantity Received (tons) A received this waste/material at the confirm the Vehicle Registration ar Where waste/material is rejected; ple	Time: Material/Waste Accept YES Address detailed in A4 o address detailed in B5 ase provide details:	Regulation 1 Name: Signature: Date: Date: An – Date: and Part C:	2 of the Waste (England & Wales) regular L M 2004 MML 14/02/15 Waste Management Op Time YES NO	eration (R or D Code)
Address: A Postcode: A Vaste Carriers Licence No: A Vehicle Registration: A Driver Name: A Signature: A Date: A Date: A Date: A PART E – Consignee's Certificate A Quantity Received (tons) A received this waste/material at the confirm the Vehicle Registration ar Where waste/material is rejected; ple certify that waste/material reuse per authorises the management/receipt	Time: Material/Waste Accept YES NO address detailed in A4 o nd Type as Detailed in B5 ase provide details: Prmit/exemption operation of the waste/material desired	Regulation 1 Name: Signature: Date: Date: and Part C: and Part C: pon number/ scribed in B	2 of the Waste (England & Wales) regular L M 277 MM 14/02/15 Waste Management Op Time YES NO FROMEMORE reference: CA at the address given in A4.	elemans
Address: A Postcode: A Vaste Carriers Licence No: A Vehicle Registration: A Corrier Name: A Signature: A Date: A Date: A PART E – Consignee's Certificate A Quantity Received (tons) A received this waste/material at the confirm the Vehicle Registration ar Where waste/material is rejected; ple certify that waste/material reuse pe authorises the management/receipt Name: A	Time: Material/Waste Accept YES NO address detailed in A4 o nd Type as Detailed in B5 ase provide details: ermit/exemption operation of the waste/material des Signa	Regulation 1 Name: Signature: Date: Date: and Part C: and Part C: on number/ escribed in B	2 of the Waste (England & Wales) regular L M 277 MM 14/02/15 Waste Management Op Time Vaste Management Op Time the eldress given in A4. Date:	entrons

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Solving comple	en Group	191	MATERIAL CONVEYA WASTE TRANSFER CONSIGNMENT	NCE AND CREATER OF A CREATER OF
A1 – Note Code: 🌆 🛦	/ 32763	3		
PART A – Notification Deta A2 – Address of Transfer/(Shell Baster)	ils ●●▲ varies Collection Point (Site): ■ でなく	●▲ A4	- Name & Address of Destination:	
A3 – Premises Code	7.1. A.F. 1. A.F.		Permit/Exemption No:	2/cs 3630RP
A5 – Current Holder/ Prod	d Waaldstand UA3 EQ		2	
PART B - Description of Wa	a. wealastone, HAS SQ	r. lef: 020 8424 7998	2	
B1 – Process giving rise to th	he waste:	Albureten	B2 - SIC Code:	01 01
42.99/0 Civil Engineering	FILL IN OR TACK UELOW g 41.20/1 Comm	nercial Building	กแพงตกตร์แม 41.20/2 Residential Building	43.11/0 Demolition
42.22/0 Infrastructure/U	Jtilities 39.00/0 Reme	diation/Waste Recycling	42.11/0 Groundwork's	42.13/0 lunnelling
B3 – EWC Code & Descript	tion of Waste/Original V	Waste Material 🛯 🌑 🛦	FILLIN OR TICK BELCAY	5. (11.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.
🛑 17 05 04 – Clean/Inert n	nuck 👘 17 05 04 – Nor	-Hazardous muck	17 05 03 – Hazardous muck	17 01 01 – Concrete
17 01 02 - Brick	17 01 07 – Den	no Rubble	17 09 04 – Mixed Con. Waste	17 03 02 - larmac
17 02 01 - Timber/Woo	a 17 02 03 – Plas nics 13 05 07 – Oily	v Water	17 02 02 – Glass 17 06 05 – Asbestos Containing Mat	17 04 07 - Mixed Met
			Contraction of the second s	
Classification of Waste/Re	Non-Hazardou	15	Hazardous	
The Concentration of Cher Hazard Codes	micals/Biological compo	onent of concern:		
B4 – If the "waste" materia	I has been recycled/treat	ted please identify to	what energification it conforms?	
Type I	Type II	6F2	6F3 Other (State)	
Type I B5 – How is the Waste Tran	Type II sported: No./weight/vol	6F2	6F3 Other (State)	
Type I B5 – How is the Waste Tran	Type II	6F2 ume if applicable:	6F3 Other (State)	Drum/IBC/1 Ton B
Type I B5 – How is the Waste Tran Articulated Lorry RO/RO 40 Yd Bin	Type II sported: No./weight/vol Tipper (20 Ton) 20 Yd Skip	6F2 ume if applicable: Grab (16 Ton) 16 Yd Skip	6F3 Other (State)	Drum/IBC/1 Ton B 8 Yd Skip
Type I B5 – How is the Waste Tran Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip	Type II sported: No./weight/vol Tipper (20 Ton) 20 Yd Skip 6 Yd Skip	GF2 Grab (16 Ton) 16 Yd Skip Mini Skip	6F3 Other (State)	Drum/IBC/1 Ton B 8 Yd Skip
Type I B5 – How is the Waste Tran Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip PART C – Carriers Certifica	Type II sported: No./weight/vol Tipper (20 Ton) 20 Yd Skip 6 Yd Skip	6F2 ume if applicable: Grab (16 Ton) 16 Yd Skip Mini Skip PART C	6F3 Other (State)	Drum/IBC/1 Ton Ba 8 Yd Skip
Type I B5 – How is the Waste Tran Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip PART C – Carriers Certifica I certify that I today collected the A4 and B3 are correct and I have requirements.	Type II sported: No./weight/vol Tipper (20 Ton) 20 Yd Skip 6 Yd Skip ate Consignment and that the d been advised of any special h	6F2 Grab (16 Ton) 16 Yd Skip Mini Skip Hetails in A2, handling Mini Skip	6F3 Other (State) Tanker 12 Yd Skip Other (State) Other (State) Other (State) Other (State) Other (State)	Drum/IBC/1 Ton B 8 Yd Skip is correct, that the carr priate precautionary kaged and labelled corre ling requirements.
Type I B5 – How is the Waste Tran Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip PART C – Carriers Certifica I certify that I today collected the A4 and B3 are correct and I have requirements. Company name:	Type II sported: No./weight/vol Tipper (20 Ton) 20 Yd Skip 6 Yd Skip ate Consignment and that the d been advised of any special for Day Comp	6F2 Grab (16 Ton) 16 Yd Skip Mini Skip Mini Skip PART C I certify t is registe measure and the I confirm Regulatio	6F3 Other (State) Tanker 12 Yd Skip Other (State) Other (state	Drum/IBC/1 Ton B 8 Yd Skip is correct, that the carr priate precautionary kaged and labelled corre ling requirements. Inste hierarchy as require tions 2011
Type I B5 – How is the Waste Tran Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip PART C – Carriers Certifica I certify that I today collected tha A4 and B3 are correct and I have requirements. Company name:	Type II sported: No./weight/vol Tipper (20 Ton) 20 Yd Skip 6 Yd Skip ate Consignment and that the d been advised of any special H Day Confectors	6F2 Grab (16 Ton) 16 Yd Skip Mini Skip Mini Skip PART C I certify is registe measure and the I confirm Regulatio	6F3 Other (State) FILL MORENERATION TO CONTROL STATE Other (State) Other (State) Other (State) Other (State) Other (State) Other dor exempt and was advised of the appro- s. All of the waste/recovered material is pack carrier has been advised of any special handle that I have fulfilled my duty to apply the was on 12 of the Waste (England & Wales) regula	Drum/IBC/1 Ton Ba 8 Yd Skip is correct, that the carr priate precautionary kaged and labelled correct ling requirements. Iste hierarchy as require tions 2011
Type I B5 – How is the Waste Tran Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip PART C – Carriers Certifica I certify that I today collected the A4 and B3 are correct and I have requirements. Company name: A Address: A Postcode: A Waste Carriers Licence No: Vehicle Registration: A	Type II sported: No./weight/vol Tipper (20 Ton) 20 Yd Skip 6 Yd Skip ate consignment and that the d been advised of any special f Day CR/PES939 BX61 DAT	6F2 Grab (16 Ton) 16 Yd Skip Mini Skip Mini Skip PART C I certify t is registe measure and the I confirm Regulation	6F3 Other (State) Tanker 12 Yd Skip Other (State) Other (State) Othe	Drum/IBC/1 Ton Ba 8 Yd Skip is correct, that the carr priate precautionary kaged and labelled corre ling requirements. Inste hierarchy as require tions 2011
Type I B5 – How is the Waste Tran Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip PART C – Carriers Certifica I certify that I today collected the A4 and B3 are correct and I have requirements. Company name: Address: Naste Carriers Licence No: Vehicle Registration:	Type II sported: No./weight/vol Tipper (20 Ton) 20 Yd Skip 6 Yd Skip 6 Yd Skip ate Consignment and that the d been advised of any special H Day Confessor BX61 DAT RY HILLE	6F2 Grab (16 Ton) 16 Yd Skip Mini Skip PART C I certify t is register measure and the I confirm Regulated (K & B. Name: Signatu	6F3 Other (State) Tanker 12 Yd Skip Other (State) Other (State	Drum/IBC/1 Ton Ba 8 Yd Skip is correct, that the carr priate precautionary kaged and labelled correc- ling requirements. Iste hierarchy as require tions 2011
Type I B5 – How is the Waste Tran Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip PART C – Carriers Certifica I certify that I today collected that A4 and B3 are correct and I have requirements. Company name:	Type II sported: No./weight/vol Tipper (20 Ton) 20 Yd Skip 6 Yd Skip ate Consignment and that the d been advised of any special H Day CONFESS BX61 DAY RYMCL CE	6F2 Grab (16 Ton) 16 Yd Skip Mini Skip Mini Skip PART C I certify t is registe measure and the I confirm Regulation (K& B. Name: Signatu	6F3 Other (State) FILL MOR TICK RELOW Tanker 12 Yd Skip Other (State) Other (State) Other (State) Other (State) Other waste/recovered material is pack carrier has been advised of any special handle that the information completed in A, B and C red or exempt and was advised of the appro s. All of the waste/recovered material is pack carrier has been advised of any special handle that I have fulfilled my duty to apply the wa on 12 of the Waste (England & Wales) regula Other (State) Other (St	Drum/IBC/1 Ton Ba 8 Yd Skip is correct, that the carr priate precautionary kaged and labelled correcting requirements. In the sequirements. In the sequirements of the sequire tions 2011
Type I B5 – How is the Waste Tran Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip PART C – Carriers Certifica I certify that I today collected the A4 and B3 are correct and I have requirements. Company name:	Type II sported: No./weight/vol Tipper (20 Ton) 20 Yd Skip 6 Yd Skip 6 Yd Skip ate consignment and that the d been advised of any special H Day CAPES939 BX61 DAY RTMC1 CE Time: IOA	6F2 Grab (16 Ton) 16 Yd Skip Mini Skip Mini Skip PART C I certify tis register measure and the I confirm Regulation (K~ B. Name: Signatu Date:	6F3 Other (State) FILL MORTHCRETOW Tanker 12 Yd Skip Other (State) Other (St	Drum/IBC/1 Ton Ba 8 Yd Skip is correct, that the carr priate precautionary kaged and labelled correcting requirements. Inste hierarchy as require tions 2011
Type I B5 – How is the Waste Tran Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip PART C – Carriers Certifica I certify that I today collected that A4 and B3 are correct and I have requirements. Company name: A Address: A Postcode: A Waste Carriers Licence No: Vehicle Registration: A Driver Name: A Signature: A Date: A PART E – Consignee's Certification: A Bate Second	Type II sported: No./weight/vol Tipper (20 Ton) 20 Yd Skip 6 Yd Skip 6 Yd Skip ate Consignment and that the d been advised of any special H Day CMPES939 BX61 DAY RYPEIS CB/PES939 BX61 DAY RYPEIS Time: CA	6F2 Grab (16 Ton) 16 Yd Skip Mini Skip Mini Skip PART C I certify t is register and the I confirm Regulation (*< & Name: Signatu Date:	6F3 Other (State) FULL MORE TICK RELOW Tanker 12 Yd Skip Other (State) Other	Drum/IBC/1 Ton Ba 8 Yd Skip is correct, that the carr priate precautionary kaged and labelled correcting requirements. Inste hierarchy as requirections 2011
Type I B5 – How is the Waste Tran Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip PART C – Carriers Certifica I certify that I today collected the A4 and B3 are correct and I have requirements. Company name: A A Address: A Postcode: A Waste Carriers Licence No: Vehicle Registration: A Driver Name: A Signature: A Date: A A PART E – Consignee's Cer Quantity Received (tons)	Type II sported: No./weight/vol Tipper (20 Ton) 20 Yd Skip 6 Yd Skip 6 Yd Skip ate • A CR/PES939 BX61 DAT RT/CE Time: • A rtificate • A WATES	6F2 Grab (16 Ton) 16 Yd Skip Mini Skip Mini Skip PART C I certify t is register measure and the I confirm Regulated (*< &. Name: Signatu Date:	6F3 Other (State) FILL MORTHCRETOW Tanker 12 Yd Skip Other (State) Other (St	Drum/IBC/1 Ton Ba 8 Yd Skip is correct, that the carr priate precautionary kaged and labelled correcting requirements. Inste hierarchy as require tions 2011
Type I B5 – How is the Waste Tran Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip PART C – Carriers Certifica I certify that I today collected the A4 and B3 are correct and I have requirements. Company name: A fill Address: A Postcode: A Vaste Carriers Licence No: Vehicle Registration: A Driver Name: A fill Signature: A Date: A fill PART E – Consignee's Cer Quantity Received (tons) A	Type II isported: No./weight/vol / Tipper (20 Ton) 20 Yd Skip 6 Yd Skip ate consignment and that the d been advised of any special H Day CAPES BX61 DAY RTYCICE Time: CA Material/W YES erial at the address deta	6F2 Grab (16 Ton) 16 Yd Skip Mini Skip Mini Skip Mini Skip PART C I certify tis register measure and the I confirm Regulation (K~ B. Name: Signatu Date: NO ailed in A4 on – Date	6F3 Other (State) FILL MORTHCOMENON Tanker 12 Yd Skip Other (State) Other (S	Drum/IBC/1 Ton Ba 8 Yd Skip is correct, that the carr priate precautionary kaged and labelled correcting requirements. Inste hierarchy as require tions 2011
Type I B5 – How is the Waste Tran Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip PART C – Carriers Certifica I certify that I today collected the A4 and B3 are correct and I have requirements. Company name: A Address: A Postcode: A Waste Carriers Licence No: Vehicle Registration: A Driver Name: A Signature: A Date: A Date: A PART E – Consignee's Cert Quantity Received (tons) A I received this waste/mate I confirm the Vehicle Regi	Type II isported: No./weight/vol Tipper (20 Ton) 20 Yd Skip 6 Yd Skip 6 Yd Skip ate Consignment and that the d been advised of any special H Day CMP BX61 DAY RYCICE Time: CA Material/W YES erial at the address deta istration and Type as De	GF2 GF2 Grab (16 Ton) Grab (16 Ton) 16 Yd Skip Mini Skip Mini Skip PART C I certify tis register measure and the tis Regulation (*< &. Name: Signatu Date: NO ailed in A4 on – Date etailed in B5 and Pai	6F3 Other (State) FILL MORE TICK RELOW Tanker 12 Yd Skip Other (State) 0 - Consignor's Certificate A hat the information completed in A, B and C red or exempt and was advised of the approsis. All of the waste/recovered material is pack carrier has been advised of any special handler that I have fulfilled my duty to apply the was on 12 of the Waste (England & Wales) regula Image: Im	Drum/IBC/1 Ton Ba 8 Yd Skip is correct, that the carr priate precautionary kaged and labelled corre ling requirements. aste hierarchy as require tions 2011
Type I B5 – How is the Waste Tran Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip PART C – Carriers Certifica I certify that I today collected tha A4 and B3 are correct and I have requirements. Company name: A Address: A Postcode: A Vaste Carriers Licence No: Vehicle Registration: A Driver Name: A Signature: A Date: A Date: A Date: A I received this waste/mate I confirm the Vehicle Regi Where waste/material is re	Type II asported: No./weight/vol Tipper (20 Ton) 20 Yd Skip 6 Yd Skip ate Consignment and that the d been advised of any special H Day CMPES939 BX61 DAY RYPES CB/PES939 BX61 DAY RYPES rtificate CAPES939 BX61 DAY Time: CA Time: CA Material/W YES erial at the address deta stration and Type as De	6F2 Grab (16 Ton) 16 Yd Skip Mini Skip Mini Skip Mini Skip PART C I certify ti is register measure and the fill I confirm Regulation (K< &. Name: Signatu Date: NO ailed in A4 on – Date etails:	6F3 Other (State) FUL NOW TICK PRION Tanker 12 Yd Skip Other (State) Other (State)	Drum/IBC/1 Ton Bi 8 Yd Skip is correct, that the carr priate precautionary kaged and labelled corre ling requirements. aste hierarchy as require tions 2011
Type I B5 – How is the Waste Tran Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip PART C – Carriers Certifica I certify that I today collected that A4 and B3 are correct and I have requirements. Company name: A Address: A Postcode: A Waste Carriers Licence No: Vehicle Registration: A Driver Name: A Signature: A Date: A PART E – Consignee's Cert Quantity Received (tons) I received this waste/mate I confirm the Vehicle Regi Where waste/material is received I certify that waste/material is received I certify that waste/material is received the management Autorises the management Autorises the management Correct of the correct o	Type II isported: No./weight/vol Tipper (20 Ton) 20 Yd Skip 6 Yd Skip 6 Yd Skip ate Consignment and that the d been advised of any special H Day CMP BX61 DAY BX61 DAY RYFICE Time: CA Material/W YES erial at the address deta istration and Type as De ejected; please provide de ial reuse permit/exempt ent/receipt of the waste,	6F2 Grab (16 Ton) Grab (16 Ton) 16 Yd Skip Mini Skip Mini Skip PART C I certify tis register measure and the l I confirm Regulated No ailed in A4 on – Date etailed in B5 and Pare etails: tion operation numb	6F3 Other (State) FULL MORE TICK RELOW Tanker 12 Yd Skip Other (State) 0 Other (State) 0 - Consignor's Certificate 0 Other (State) 0 - Consignor's Certificate 0 Other (State) 0 - Consignor's Certificate 0 - Consignor's Certificate 12 Yd Skip Other (State) 0 - Consignor's Certificate 14 Information completed in A, B and Cored or exempt and was advised of the approsite structure is package. 12 of the waste/recovered material is package. 12 of the Waste (England & Wales) regula 12 of the Waste (England & Wales) regula 14 hay fulfiled my duty to apply the was abon 12 of the Waste (England & Wales) regula Waste Management Open Waste Management Open e: Time: Waste Management Open e: YES waste recover e: YES waste recover e: YES waste recover e: YES waste recover	Drum/IBC/1 Ton B: 8 Yd Skip is correct, that the carr priate precautionary kaged and labelled correcting requirements. Inste hierarchy as requirections 2011

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Blue copy: Haulier

Yellow copy: Waste facility

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	WASTE / MATERIA	AL TRACKING NOTE	Emf 18.2
Toureen	Group	MATERIAL CO WASTE TRANS	ORLY FILL IN PARTS WITH THIS SYMBOL ORLY FILL IN PARTS WITH THIS SYMBOL
Solving complex c	hallenges since 1991		NT ONLY FILL IN PARTS WITH THIS SYMBOL
A1 – Note Code: 🍽 🔺	/ 32772		
PART A – Notification Details A2 – Address of Transfer / Colle Hell Blockwere Postcode: Two I 1 XO A3 – Premises Code A5 – Current Holder/ Producer Toureen Group, 25 Cecil Rd. W	Ction Point (Site):	A4-Name & Address of Dest Transport Ave Gred Postcode: TW8 9HF Permit/Exemption No: 10 1998	ination: ■●▲ ⊈~~ ● EPR/883232.R×
PART B – Description of Waste	/ Material		
B1 – Process giving rise to the w	raste:	B2 – SIC Code: 🚺	
42.99/0 Civil Engineering 42.22/0 Infrastructure/Utilitie	41.20/1 Commercial Building 39.00/0 Remediation/Waste	g 41.20/2 Residential Building Recycling 42.11/0 Groundwork's	43.11/0 Demolition 42.13/0 Tunnelling
B3 – EWC Code & Description	of Waste/Original Waste Mate	erial 💵 🛋	
 17 05 04 - Clean/Inert muck 17 01 02 - Brick 17 02 01 - Timber/Wood 17 01 03 - Tiles & Ceramics 	17 05 04 - Non-Hazardous m 17 01 07 - Demo Rubble 17 02 03 - Plastics 13 05 07 - Oily Water	nuck 17 05 03 – Hazardous muck 17 09 04 – Mixed Con. Waste 17 02 02 – Glass 17 06 05 – Asbestos Containing	 17 01 01 - Concrete 17 03 02 - Tarmac 17 06 04 - Insulation g Mat. 17 04 07 - Mixed Metals
Classification of Waste/Recove	ered Material: ا 🛋		
Clean/Inert	Non-Hazardous	Hazardous	
Hazard Codes B4 – If the "waste" material has Type I Type I Ty	been recycled/treated please ic pe II 6F2 ted: No./weight/volume if appli	dentify to what specification it conform 6F3 Oth icable:	ns? 🔺 er (State)
Articulated Lorry	Clipper (20 Ion) Grab	(16 ION) Ianker	9 Vd Skip
RU/RU 40 Ya Bin	6 Vd Skip Mini	Skip Other (State)	о та экір
о та экір		Skip Other (State)	
PART C – Carriers Certificate I certify that I today collected the cons A4 and B3 are correct and I have been requirements. Company name:	signment and that the details in A2, a advised of any special handling	PART D — Consignor's Certificate I certify that the information completed in / is registered or exempt and was advised of measures. All of the waste/recovered mate and the carrier has been advised of any spe I confirm that I have fulfilled my duty to apy Regulation 12 of the Waste (England & Wal	A, B and C is correct, that the carrier the appropriate precautionary rial is packaged and labelled correctly acial handling requirements. ply the waste hierarchy as required by les) regulations 2011
Postcode:	colocraza Le	Regulation 12 of the Waste (England & Wa	
Waste Carriers Licence No:	PISDAY	Name:	
Signature:		Signature:	
Date: 12/01/16	Time:	Date:	Time: 🚺 👞
PART E – Consignee's Certific	ate		
Quantity Received (tons)	Material/Waste Accept YES NO	ted III Waste Manageme	ent Operation (R or D Code) 🚛
I received this waste/material	at the address detailed in A4 c	on – Date:	Time: 🚺
I confirm the Vehicle Registrat	tion and Type as Detailed in B5	5 and Part C: 🚺 🐘 YES 👘 NO	
Where waste/material is rejected	ed; please provide details:	IF N	O PLEASE PROVIDE DETAILS
I certify that waste/material re authorises the management/r	use permit/exemption operati eceipt of the waste/material de	on number/reference: ● ▲ escribed in B at the address given in <i>i</i>	A4.
Name:	Sign	ature:	Date: 🛯 🌑 🛦
*** White copy: Head Office	Blue copy: Haulier	Yellow copy: Waste facility	Pink copy: PC/site ***

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Blue copy: Haulier

Yellow copy: Waste facility

	WASTE	/ MATERIAL T	RACKING NOTE	Emf 18.2
	Toureen Grou	. P nce 1991	WASTE TRANSFER CONSIGNMENT	VANCE ONLY FILL IN PARTS WITH THIS SYMBOL ORAY FILL IN PARTS WITH THIS SYMBOL ORAY FILL IN PARTS WITH THIS SYMBOL
	A1 – Note Code: IOA / 32	771		
	PART A – Notification Details Avanues A2 – Address of Transfer / Collection Point (Shall Blackhow Postcode: Twg IxO A3 – Premises Code A5 – Current Holder/ Producer of the Wast Tourson Group 25 Cacil Rd, Wealdstone, b	Site):	A4 – Name & Address of Destinatio Transport Ave Breatland Postcode: Two 94 F Permit/Exemption No: • E	n: IOA PR/BB3232RX
ſ	PART B – Description of Waste / Material	VARIES		2
	B1 – Process giving rise to the waste:	Exclusion.	B2 – SIC Code:	
	42.99/0 Civil Engineering41.2042.22/0 Infrastructure/Utilities39.00	/1 Commercial Building /0 Remediation/Waste Recyclir	41.20/2 Residential Building 42.11/0 Groundwork's	43.11/0 Demolition 42.13/0 Tunnelling
	B3 – EWC Code & Description of Waste/Or 17 05 04 – Clean/Inert muck 17 05 17 01 02 – Brick 17 01 17 02 01 – Timber/Wood 17 02 13 05 13 05	iginal Waste Material 04 – Non-Hazardous muck 07 – Demo Rubble 03 – Plastics 07 – Oily Water	FILLIN OR TREASELOW 17 05 03 - Hazardous muck 17 09 04 - Mixed Con. Waste 17 02 02 - Glass 17 06 05 - Asbestos Containing Mat.	17 01 01 – Concrete 17 03 02 – Tarmac 17 06 04 – Insulation 17 04 07 – Mixed Metals
e	Classification of Waste/Recovered Materia		Hazardous	
n	The Concentration of Chemicals/Biologica Hazard Codes	component of concern: ed/treated please identify	to what specification it conforms?	te)
	B5 – How is the Waste Transported: No./we Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip 6 Yd Skip	ight/volume if applicable: Ton) Grab (16 To 16 Yd Skip Mini Skip	Tanker 12 Yd Skip Other (State)	Drum/IBC/1 Ton Bag 8 Yd Skip
CUSTOM.	PART C - Carriers Certificate Average I certify that I today collected the consignment and to A4 and B3 are correct and I have been advised of an requirements. Company name: Advector of the consignment and to the consignment and to the consignment and to the construction of th	hat the details in A2, y special handling	TD – Consignor's Certificate A fy that the information completed in A, B and stered or exempt and was advised of the ap- ures. All of the waste/recovered material is the carrier has been advised of any special has item that I have fulfilled my duty to apply the ation 12 of the Waste (England & Wales) re- me: A A MANTAMA ature: A A MANTAMA ature: A MANTAMA to Maste Management C ate: The Part C: A YES NO	nd C is correct, that the carrier opropriate precautionary packaged and labelled correctly andling requirements. e waste hierarchy as required by gulations 2011 me:
v v	Where waste/material is rejected; please p I certify that waste/material reuse permit	rovide details: /exemption operation nu e waste/material describ	mber/reference:	
	Name:	Signature	:∎●▲ Date	2: 🚺 🌑 🛦
	*** White copy: Head Office B	ue copy: Haulier	Yellow copy. Waste facility	Pink copy: PC/site ***

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	WAJIE / WA	ATERIAL	TRACKING NOTE	Emf 18
Toureen Group Solving complex challenges since 1991		91	WATERIAL COI WASTE TRANS CONSIGNMEN	VVEYANCE ORY FLL IN P FER ORY FLL IN P VITIT HIS SYN
A1 – Note Code: 🎩				
	/ 32773	3		
PART A – Notification Details A2 – Address of Transfer / Col Shall Blackhow Postcode: Two 1 × 0	lection Point (Site):		A4 - Name & Address of Destin Transport Are Breat Postcode: TWS 94 Permit/Exemption No:	epp/822378X
A5 – Current Holder/ Produce	er of the Waste Mater	rial — Transfero	or	er yosgesen r
Toureen Group, 25 Cecil Rd. V	Nealdstone, HA3 5QY.	tel: 020 8424 2	7998	
PART B – Description of Waste	e / Material	+		
B1 – Process giving rise to the	waste:	vallini	B2 – SIC Code: 🌆	LINOR TICK BELOW
42.99/0 Civil Engineering 42.22/0 Infrastructure/Utilit	41.20/1 Comme ies 39.00/0 Remedi	rcial Building ation/Waste Recyc	41.20/2 Residential Building	43.11/0 Demolition 42.13/0 Tunnelling
B3 – EWC Code & Description	n of Waste/Original W	aste Material		
 17 05 04 - Clean/Inert much 17 01 02 - Brick 17 02 01 - Timber/Wood 17 01 03 - Tiles & Ceramics 	 17 05 04 – Non- 17 01 07 – Demo 17 02 03 – Plasti 13 05 07 – Oily V 	Hazardous muck o Rubble cs Vater	17 05 03 – Hazardous muck 17 09 04 – Mixed Con. Waste 17 02 02 – Glass 17 06 05 – Asbestos Containing	 17 01 01 – Concrete 17 03 02 – Tarmac 17 06 04 – Insulation Mat. 17 04 07 – Mixed Meta
Classification of Waste/Recov	vered Material: IOA Non-Hazardous		Hazardous	
B5 – How is the Waste Transpo	ype II 6F	2 me if applicable	6F3 Other	- (State)
Articulated Lorry	/Tipper (20 Ton)	Grab (16 1	Ton) Tanker	Drum/IBC/1 Ton Ba
8 Yd Skip	6 Yd Skip	Mini Skip	Other (State)	
PART C – Carriers Certificate I certify that I today collected the con A4 and B3 are correct and I have bee requirements. Company name:	nsignment and that the det n advised of any special ha	ails in A2, ndling is rea and is rea is rea is is rea is rea is rea is rea is rea is rea is rea is rea is i	TD — Consignor's Certificate	B and C is correct, that the carrie e appropriate precautionary al is packaged and labelled corre al handling requirements.
Postcode:	CE/PES939K	6.	lation 12 of the Waste (England & Wales	;) regulations 2011
Driver Name:	(65 DAY	INan		
Signature:		Sign	ature:	
Date: 12/11/16	Time:	Date	e: 101 12/01/16.	Time:
PART E – Consignee's Certifi				
Quantity Received (tons)	Material/Was YES	te Accepted I	Waste Managemen	t Operation (R or D Code)
I received this waste/materia	l at the address detail	ed in A4 on – D	ate:	Time:
I confirm the Vehicle Registra	tion and Type as Deta	ailed in B5 and	Part C: 🚺 YES NO	
Where waste/material is reject	ed; please provide det	ails:	H NO PI	EASE PROVIDE DETAILS
I certify that waste/material read authorises the management/	euse permit/exemptic receipt of the waste/n	n operation nu naterial describ	mber/reference:] @▲ ed in B at the address given in A4	ŀ.
Name:		Signature	: [●▲ D:	ate:

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	n Group x challenges since 1991		WATERIAL CONVE WASTE TRANSFER CONSIGNMENT	YANCE CRAY FIL O CRAY FIL CRAY FIL CRAY FIL CRAY FIL CRAY FIL CRAY FIL
A1 – Note Code: 🍽 🛦	/ 33801			
PART A – Notification Detail A2 – Address of Transfer / Co 17 4 Shown Rd. Postcode: Tw 9 12 A3 – Premises Code A5 – Current Holder/ Produ	Is A varies ollection Point (Site): A Ruhmond - Corror of the Waste Material — Tra Wealdstone, HA3 50Y, tel: 020 2	A4 nsferor 8424 7998	- Name & Address of Destinatio Days - Breakford Human Postcode: Permit/Exemption No: 10 Ef	n: Struvel CPR/463066 CPR/463066 C/BB3232RX
PART B – Description of Was	te / Material	51217550		
B1 – Process giving rise to the	e waste:	4	B2 – SIC Code: 🚺 1	10504
42.99/0 Civil Engineering 42.22/0 Infrastructure/Uti	41.20/1 Commercial Buildir 39.00/0 Remediation/Wast	ng e Recycling	41.20/2 Residential Building 42.11/0 Groundwork's	43.11/0 Demolition 42.13/0 Tunnelling
B3 – EWC Code & Description	on of Waste/Original Waste Mat	erial 🚺 🔍		*
 17 05 04 – Clean/Inert mu 17 01 02 – Brick 17 02 01 – Timber/Wood 17 01 03 – Tiles & Cerami 	uck 17 05 04 – Non-Hazardous r 17 01 07 – Demo Rubble 17 02 03 – Plastics 13 05 07 – Oily Water	muck	17 05 03 – Hazardous muck 17 09 04 – Mixed Con. Waste 17 02 02 – Glass 17 06 05 – Asbestos Containing Mat.	X17 01 01 – Concrete 17 03 02 – Tarmac 17 06 04 – Insulation 17 04 07 – Mixed Mo
Classification of Waste/Rec	overed Material: 📕 🗪			
Clean/Inert	Non-Hazardous		Hazardous	
B5 – How is the Waste Trans	Type II 6F2 ported: No./weight/volume if app /Tipper (20 Ton) Grat	licable: I O o (16 Ton)	6F3 Other (Stat	e) Drum/IBC/1 Ton
RO/RO 40 Yd Bin	20 Yd Skip 16 Y	'd Skip i Skip	12 Yd Skip	8 Yd Skip
8 TU SKIP	отазкір імпі	тэкір	other (state)	
PART C – Carriers Certificat I certify that I today collected the of A4 and B3 are correct and I have b requirements. Company name:	e • • • • • • • • • • • • • • • • • • •	PART D I certify th is registere measures. and the ca	– Consignor's Certificate at the information completed in A, B and a down and the information completed in A, B and a down and the appendix of a second and the appendix of the waste/recovered material is partier has been advised of any special har have fulfilled my duty to apply the second and	d C is correct, that the ca propriate precautionary ackaged and labelled cor ndling requirements. waste hierarchy as requi
Postcode: IOA 7 A 3 5 Waste Carriers Licence No: I Vehicle Registration: IOA	CB/AM 3344-SF	Regulation	●▲ L WARTy	ulations 2011
Driver Name:	Khul	Signatur	e: IOA Mount	
Date: 10A 28/91/16	Time:	Date:	🔺 28/01/16 Tim	e: () (
PART E – Consignee's Certi	ficate	1		
Quantity Received (tons)	Material/Waste Accep YES NO	oted 🛯 🌑 🔺	Waste Management Op	peration (R or D Cod
I received this waste/mater	ial at the address detailed in A4	on – Date:	Tim	e: 📕 🌒 🛦
I confirm the Vehicle Regist	ration and Type as Detailed in B	5 and Part	C:	
Where waste/material is reje	cted; please provide details:		IF ND PLEASE PRO	VIDE DETAILS
I certify that waste/material authorises the management	reuse permit/exemption operat t/receipt of the waste/material d	ion numbe escribed ir	er/reference:∎●▲ n B at the address given in A4.	
Name:	Sigr	nature:	A Date:	
	Rive conv Haulier		Masta facility	Dink serve DC/cit

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	WASTE / MATER	IAL TRACKING N	Emf 18.2
Touree	n Group	MATER	
Solving comple	x challenges since 1991		GNMENT
A1 – Note Code: 📕 🔍 🛦		*	•
	/ 32759		
PART A – Notification Detail A2 – Address of Transfer, / Co Shell Blanch Postcode: Tw9 IXC A3 – Premises Code A5 – Current Holder/ Produ	S VARIES Sollection Point (Site): IMA Cer of the Waste Material — Tra Wealdstone, HA3 50V tal: 020	A4 – Name & Address DAXS - Group Postcode: Permit/Exemption nsferor	of Destination:
PART B – Description of Was	te / Material	5424 / 998	
B1 – Process giving rise to the	e waste: 10 Excervention	B2 – SIC Co	de: 🌆 j7 01 91
42.99/0 Civil Engineering 42.22/0 Infrastructure/Uti	41.20/1 Commercial Buildir ities 39.00/0 Remediation/Wast	g 41.20/2 Residential B e Recycling 42.11/0 Groundwork'	uilding 43.11/0 Demolition
B3 – EWC Code & Descriptio	on of Waste/Original Waste Mat	erial IOA	
17 05 04 – Clean/Inert mu 17 01 02 – Brick 17 02 01 – Timber/Wood 17 01 03 – Tiles & Ceramic	ick 17 05 04 – Non-Hazardous r 17 01 07 – Demo Rubble 17 02 03 – Plastics 13 05 07 – Oily Water	nuck 17 05 03 – Hazardous 17 09 04 – Mixed Con 17 02 02 – Glass 17 06 05 – Asbestos C	muck /17 01 01 – Concrete . Waste 17 03 02 – Tarmac 17 06 04 – Insulation containing Mat. 17 04 07 – Mixed Metals
Classification of Waste/Reco	overed Material: 🚺 🌑 🛦		
Clean/Inert	Non-Hazardous	Hazardous	
The Concentration of Chemi Hazard Codes I B4 – If the "waste" material h	icals/Biological component of co has been recycled/treated please i	ncern:	conforms? 🔺
Туре І	Type II 6F2	6F3	Other (State)
B5 – How is the Waste Transp Articulated Lorry RO/RO 40 Yd Bin 8 Yd Skip	Tipper (20 Ton) Grab 20 Yd Skip 16 Yd 6 Yd Skip Mini	icable: (16 Ton) Tanker Skip 12 Yd Skip Skip Other (St	Drum/IBC/1 Ton Bag 8 Yd Skip ate)
DART C - Corriers Cortificate		DADT D. C. L. C.	
I certify that I today collected the co A4 and B3 are correct and I have be requirements.	onsignment and that the details in A2, en advised of any special handling	PART D – Consignor's Certifi I certify that the information compl is registered or exempt and was ad- measures. All of the waste/recoven and the carrier has been advised of	icate I A eted in A, B and C is correct, that the carrier vised of the appropriate precautionary ed material is packaged and labelled correctly any special handling requirements.
Company name:	Clerk .	I confirm that I have fulfilled my du	ty to apply the waste hierarchy as required by
Postcode:	*	Regulation 12 of the Waste (Englan	d & Wales) regulations 2011
Waste Carriers Licence No:	CB/PE5939KB-	Name:	Ý
Driver Name:	SALCONER	Signature:	/
Date:	Time:	Date:	Time:
PART E – Consignee's Certif	icate	1	
Quantity Received (tons)	Material/Waste Accept	ed 🚺 📥 🛛 Waste Man	agement Operation (R or D Code) 🔳 🌑
I received this waste/materia	al at the address detailed in A4 c	n – Date:	Time:
I confirm the Vehicle Registra	ation and Type as Detailed in B5	and Part C:	NO
Where waste/material is rejec	ted; please provide details:		IF NO PLEASE PROVIDE DETAILS
I certify that waste/material r authorises the management/	reuse permit/exemption operation receipt of the waste/material de	on number/reference:	en in A4.
Name:	Signa	ature:	Date:
*** White copy: Head Office	Blue copy: Haulier	Yellow copy: Waste fac	ility Pink copy: PC/site ***

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APPENDIX F LABORATORY CERTIFICATES



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

Attention: Phil Allen

CERTIFICATE OF ANALYSIS

Date: Customer: Sample Delivery Group (SDG): Your Reference: Location: Report No: 29 September 2015 H_URS_WIM 150922-33 46370438 Shell Blackhorse 331469

We received 9 samples on Tuesday September 22, 2015 and 9 of these samples were scheduled for analysis which was completed on Tuesday September 29, 2015. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

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

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

Approved By:

Sonia McWhan Operations Manager



Alcontrol Laboratories is a trading division of ALcontrol UK Limited Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No.

CERTIFICATE OF ANALYSIS

Validated

SDG:	150922-33	Location:	Shell Blackhorse	Order Number:	
Job:	H_URS_WIM-282	Customer:	AECOM	Report Number:	331469
Client Reference:	46370438	Attention:	Phil Allen	Superseded Report:	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
12103788	Active			21/09/2015
12103785	Dup		7.00	21/09/2015
12103786	EB			21/09/2015
12103780	MW1		7.25	21/09/2015
12103781	MW2		6.91	21/09/2015
12103783	MW3		7.00	21/09/2015
12103784	MW4		7.00	21/09/2015
12103787	Static			21/09/2015
12103789	Trip Blank			

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

ALcontrol La	boratori	es	C	ER	TI	FI	С	AT	Έ	0	F /	11	IA	LY	'SI	S													L			alio
SDG: Job: I Client Reference: 4	150922-33 H_URS_WI 46370438	IM-282	Location Custome Attention	: r: ::	Sł Ał Pł	hell EC hil A	Bla OM Alle	acki n	nors	se									Or Re Su	der por per:	Nun t Nu sede	nbe mb ed l	er: er: Rep	ort	1	33	3146	39				
LIQUID Results Legend X Test		Lab Sa	mple No(s)					12103788				12103785				12103786				12103780				12103781					12103783		12103704	10102787
No Determination Possible	on	Cu Sample	stomer Reference					Active				Dup				EB				MW1				MW2				101000	MW3	MW4		N/N/A
		AGS I	Reference																													
		De	pth (m)									7.00								7.25				6.91				1.00	7 00		1.00	7 00
	-	Co	ntainer	1000ml glass bottle	1 Iblastic (ALE221)	HCI Filtered (ALE2	HNO3 Filtered (ALE	Vial (ALE297)	1lplastic (ALE221)	Dissolved Metals P	HNO3 Filtered (ALE	Vial (ALE297)	1000ml glass bottle	Dissolved Metals P	HCI Filtered (ALE2		1000ml glass bottle	Dissolved Metals P	HCI Filtered (ALE2	Vial (ALE297) HNO3 Filtered (Al F	1000ml glass bottle	Dissolved Metals P	HCI Filtered (ALE2)	Vial (ALE297) HNO3 Filtered (ALE	1000ml glass bottle	1Inlastic (ALE221)	HCI Filtered (ALE2	HNO3 Filtered (ALE	1000ml glass bottle Vial (AI F297)	1lplastic (ALE221)	Dissolved Metals P	
Anions by Kone (w)		All	NDPs: 0 Tests: 8		X				x)	<u>،</u>			<u> </u>	C				K				X				X		
Determination of Dissolved C	Gases	All	NDPs: 0 Tests: 6									x				X				x				×				ſ	x		-	
Dissolved Metals by ICP-MS	; ; ;	All	NDPs: 0 Tests: 8				x				x					C				X				x				X				
EPH CWG (Aliphatic) Aqueo (W)	ous GC	All	NDPs: 0 Tests: 8	x				×	<u> </u>				X				x				X				x				×	 _	+	-
EPH CWG (Aromatic) Aquec (W)	ous GC	All	NDPs: 0 Tests: 8	x				×	<u> </u>				x				X				x				x				×			
Ferrous Iron		All	NDPs: 0 Tests: 8			x					x				x				x				x				x				>	×
GRO by GC-FID (W)		All	NDPs: 0 Tests: 8					x				x				X				x				×	r i				x			
Hexavalent Chromium (w)		All	NDPs: 0 Tests: 8		x				x)	C)	Contraction 1 and the second secon				ĸ				x				x		
Mercury Dissolved		All	NDPs: 0 Tests: 8		×	<mark>(</mark>				x				x				x				x				2	<				x	-
Oxygenates (W)		All	NDPs: 0 Tests: 8					x				x				x				x				×	2				x			
PAH Spec MS - Aqueous (W	/) .	All	NDPs: 0 Tests: 8	x				×	1				x				x				x				x				×		-	
VOC MS (W)		All	NDPs: 0 Tests: 9					x				x				x				x				×					x			

ALcontrol Lat	ooratories	C	-R1	IFI	C⊅.	τϝ	0	F ANALYSIS	[Valid
SDG: 1 Job: H Client Reference: 4	50922-33 I_URS_WIM-282 6370438	Location: Custome Attention	- 1 X r:	Shell AEC Phil /	Black DM Allen	kho	rse	Order Number: Report Number: 33144 Superseded Report:	69	
LIQUID Results Legend X Test	Lab Sample	e No(s)	12103784			12103787	12103789			
No Determination Possible	Custon Sample Ref	ner erence	MW4			Static	Trip Blank			
	AGS Refe	rence								
	Depth (m)	7.00							
	Contair	ner	Vial (ALE297) HNO3 Filtered (ALE	11plastic (ALE221) 1000ml glass bottle	HCI Filtered (ALE25 Dissolved Metals Pi	HNO3 Filtered (ALE	Vial (ALE297)			
Anions by Kone (w)	All	NDPs: 0 Tests: 8		×						
Determination of Dissolved G	ases All	NDPs: 0 Tests: 6	X							
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 8	x			X				
EPH CWG (Aliphatic) Aqueou (W)	us GC All	NDPs: 0 Tests: 8		x						
EPH CWG (Aromatic) Aqueor (W)	us GC All	NDPs: 0 Tests: 8		x						
Ferrous Iron	Ali	NDPs: 0 Tests: 8			X					
GRO by GC-FID (W)	All	NDPs: 0 Tests: 8	×)	(
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 8		×						
Mercury Dissolved	All	NDPs: 0 Tests: 8			X					
Oxygenates (W)	All	NDPs: 0 Tests: 8	×			>	((
PAH Spec MS - Aqueous (W)) All	NDPs: 0 Tests: 8		x						
VOC MS (W)	All	NDPs: 0 Tests: 9	x)	(X			

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Results Legend		Customer Sample R	Active	Dup	EB	MW1	MW2	MW3
# ISO17025 accredited.								
aq Aqueous / settled sample.		Donth (m)		7.00		7.05	0.04	7.00
diss.filt Dissolved / filtered sample.		Sample Type	Water(GW/SW)	Vater(GW/SW)	Water(GW/SW)	7.25 Water(GW/SW)	0.91 Water(GW/SW)	Vater(GW/SW)
* Subcontracted test.		Date Sampled	21/09/2015	21/09/2015	21/09/2015	21/09/2015	21/09/2015	21/09/2015
** % recovery of the surrogate standa check the efficiency of the method.	rd to The	Sampled Time						
results of individual compounds wi	thin	Date Received SDG Ref	150922-33	150922-33	150922-33	150922-33	150922-33	150922-33
samples aren't corrected for the rec (F) Trigger breach confirmed	covery	Lab Sample No.(s)	12103788	12103785	12103786	12103780	12103781	12103783
1-5&+§@ Sample deviation (see appendix)		AGS Reference						
Component	LOD/Un	ts Method						
Iron, Ferrous	<0.1 m	g/l TM125	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
			#	#	#	#	#	#
Arsenic (diss.filt)	<0.12	TM152	2.74	1.48	2.56	1.69	5.24	2.24
	µg/l		#	#	#	#	#	#
Boron (diss.filt)	<9.4 µ	g/I TM152	37.8	27.3	34.5	50.1	33.5	35
· · ·	·	- -	#	#	#	#	#	#
Cadmium (diss filt)	<0 1 u	a/I TM152	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	·•. · p	g/1 111102	#		-0.1	-0.1		
Chromium (diss filt)	<0.22	TM152	3 55	1.85	7.84	2 02	1.64	2 52
Chromium (diss.mt)	~0.22 ua/l		J.JJ	1.05 <i>µ</i>	1.04	۷.52	1.04	ير
Cabalt (dias filt)	μg/i 10.00		#	#	#	#	#	#
Cobait (diss.fiit)	<0.06	11/1152	0.214	0.256	0.213	0.132	0.155 "	10 "
	μg/i	T1450	#	#	#	#	#	#
Copper (diss.filt)	<0.85	IM152	15.4	4.84	130	<0.85	<0.85	8.18
	µg/l		#	#	#	#	#	#
Lead (diss.filt)	<0.02	TM152	0.332	0.137	0.549	0.185	0.057	0.035
	µg/l		#	#	#	#	#	#
Manganese (diss.filt)	<0.04	TM152		0.992	0.398	0.122	0.135	41.9
	µg/l			#	#	#	#	#
Molybdenum (diss.filt)	<0.24	TM152	0.465	<0.24	0.3	<0.24	<0.24	0.315
	µg/l		#	#	#	#	#	#
Nickel (diss.filt)	< 0.15	TM152	2.47	3.05	3.29	1.3	1.21	22.2
	ua/l		#	#	#	#	#	#
Selenium (diss filt)	<0.39	TM152	<0.39	<0.39	0.583	<0.39	<0.39	<0.39
	ua/l	111102	-0.00	-0.00	0.000 #	-0.00 #	-0.00	-0.00
Tin (diss filt)	<0.36	TM152		<i>_</i> −0.36	<i>∽</i> 0.36	-0.36 #	#	-0.36
	<0.30	1101132	0.441	×0.50 µ	×0.50	×0.30 µ	~0.50 	×0.50 بر
7 1	µy/i	T1450	#	#	#	#	#	#
ZINC (diss.filt)	<0.41	TM152	3.35	11.5	101	1	11.3	6.79
	µg/i		#	#	#	#	#	#
Mercury (diss.filt)	<0.01	TM183	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	µg/I	_	#	#	#	#	#	#
Sulphate	<2 mg	/l TM184	48.5	48.2	48.5	48	46.9	46.3
			#	#	#	#	#	#
Nitrate as NO3	<0.3 m	g/l TM184	27.3	26.5	27.2	27.4	27.1	25.8
			#	#	#	#	#	#
Methane, dissolved	<1 µg	/I TM223		<2.27	<2.27	<2.27	<2.27	<2.27
Chromium, Hexavalent	< 0.03	TM241	<0.03	<0.03	< 0.03	<0.03	<0.03	<0.03
,	mg/l		#	#	#	#	#	#
Ethanol	<50 µ	1/I TM289	<50	<50	<50	<50	<50	<50
	C - H	,00						
tert Butanol	<10	1/I TM280	<10	<10	<10	<10	<10	<10
	~ 10 hí	gri ivi∠09	510	510	~10	~10	VI V	~10
Diisopropyl othor	~1	// TM290	~1	~1	~1	~1	~1	~1
	<1 µg	/1 111289	N	N	N	N	S 1	S 1
tert-butyl ethyl ether	<1 µg	/i IM289	<1	<1	<1	<1	<1	<1

CERTIFICATE OF ANALYSIS

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# ISO17025 accredited.		Customer Sample R	MW4	Static			
M mCERTS accredited.							
aq Aqueous / settled sample. diss.filt Dissolved / filtered sample.		Depth (m)	7.00				
tot.unfilt Total / unfiltered sample.		Sample Type	Water(GW/SW)	Water(GW/SW)			
** % recovery of the surrogat	e standard to	Sampled Time	21/09/2015	21/09/2015			
check the efficiency of the results of individual compo	method. The	Date Received	22/09/2015	22/09/2015			
samples aren't corrected for	or the recovery	SDG Ref	150922-33	150922-33			
(F) Trigger breach confirmed 1-5&+§@ Sample deviation (see appert)	endix)	Lab Sample No.(s)	12103764	12103707			
Component	LOD/U	nits Method					
Iron Ferrous	<0.1 r	ng/I TM125	<0.1	<0.1			
non, r enous	50.11	ng/i invitz5	-0.1	~0.1			
Aroonio (dico filt)	-0.1	2 TM152	# 1 49	2.54			
	<0.1	2 1101132	1.40	<u>۳</u>			
Deren (dies filt)	μg/i		#	#			
BOION (diss.nit)	<9.4	19/1 11/152	23.3	30.7			
			#	#			
Cadmium (diss.nit)	<0.1	1g/1 11v1152	<0.1	<0.1			
Observations (alian CIII)	10.0	0 71450	#	#			
Chromium (diss.filt)	< 0.2	2 11/152	2.43	2.21			
	µy/i		#	#			
Cobalt (diss.filt)	<0.0	6 IM152	0.254	0.535			
Oppman (-P 510)	µg/l	F T14/50	#	#			
Copper (alss.tilt)	<0.8	э IM152	5.04	91.1			
Lead (dl 50)	µg/l	0 714/	#	#			
Lead (diss.filt)	<0.0	2 IM152	0.133	0.354			
	µg/l		#	#			
Manganese (diss.filt)	<0.0	4 TM152	1.13				
	µg/l		#				
Molybdenum (diss.filt)	<0.2	4 TM152	<0.24	0.315			
	µg/l		#	#			
Nickel (diss.filt)	<0.1	5 TM152	3.37	2.66			
	µg/l		#	#			
Selenium (diss.filt)	<0.3	9 TM152	<0.39	0.83			
	µg/l		#	#			
Tin (diss.filt)	< 0.3	6 TM152	<0.36	<0.36			
	µg/l		#	#			
Zinc (diss.filt)	<0.4	1 TM152	5.51	28.4			
- (µg/l		#	#			
Mercury (diss.filt)	<0.0	1 TM183	<0.01	<0.01			
······	na/		#	#			
Sulphate	<2 m	a/l TM184	45.5	48.4			
Culphate	-2	9/1	#	#			
Nitrate as NO3	<0.3 r	ng/l TM184	26	27.4			
	-0.01	ng/i invito+	20 #	£1.4 #			
Methane dissolved	<1	g/l TM223	# <2.27	#			
weinane, uissoweu	~1µ	g/i 11vi225	~2.21				
Chromium Hovovalant	<0.0	2 TM244	<0.02	<0.02			
Chromium, nexavalent	<0.0	5 I IVIZ4 I	۳ ۷.03	×0.05 ۳			
Ethanal	1119/		#	#			
Enanoi	<50 µ	ig/i 1M289	<50	<50			
tant Dutair - I			.40	.40			
tert Butanol	<10 µ	IG/I IM289	<10	<10			
Discuss 1 1		- //					
ulisopropyl ether	<1 µ	g/i IM289	<1	<1			
				· · ·			
tert-butyl ethyl ether	<1 µ	g/I TM289	<1	<1			
		-			•		

ALcontrol Labora	atories	5	CERT	IFICATE OF A	NALYSIS			Validated
SDG: 15092 Job: H_UR Client Reference: 46370	22-33 RS_WIM-2 0438	282	Location: S Customer: A Attention: F	Shell Blackhorse AECOM Phil Allen		Order Number: Report Number: Superseded Repo	331469 ort:	
EPH CWG (Aliphatic) Ac	lueous	GC (W)						
Kesuits Legend Kesuits Kesuits	rd to The thin covery	Customer Sample R Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s)	Active Water(GW/SW) 21/09/2015 22/09/2015 150922-33 12103788	Dup 7.00 Water(GW/SW) 21/09/2015 22/09/2015 150922-33 12103785	EB Water(GW/SW) 21/09/2015 22/09/2015 150922-33 12103786	MW1 7.25 Water(GW/SW) 21/09/2015 22/09/2015 150922-33 12103780	MW2 6.91 Water(GW/SW) 21/09/2015 22/09/2015 150922-33 12103781	MW3 7.00 Water(GW/SW) 21/09/2015 22/09/2015 150922-33 12103783
Component	LOD/Un	AGS Reference its Method						
Aliphatics >C12-C16 (aq)	<10 µ	g/l TM174	<10	<10	<10	<10	<10	<10
Aliphatics >C16-C21 (aq)	<10 µ	g/l TM174	<10	<10	<10	<10	<10	<10
Aliphatics >C21-C35 (aq)	<10 µ	g/l TM174	<10	<10	<10	<10	<10	<10
								_

Al control Labor	atories							Validated
	atorico		CERTI	FICATE OF A	NALYSIS			Validatod
SDG: 1509 Job: H_UF Client Beference: 4637	22-33 RS_WIM-28	2	Location: SI Customer: Al	nell Blackhorse ECOM		Order Number: Report Number: Superseded Report	331469	
EPH CWG (Aliphatic) A	oueous G	iC (W)	Attention. FI			Superseded Report		
Results Legend # ISO17025 accredited. M mCERTs accredited. aq Aqueous / settled sample. diss.filt Dissolved / filtered sample. tot.unfilt Total / unfiltered sample. * Subcontracted test. * % recovery of the surrogate stand. check the efficiency of the method results of individual compounds w samples aren't corrected for the ref. (F) Trigger breach confirmed 1-5&&g Sample deviation (see appendix)	C ard to . The ithin covery	ustomer Sample R Depth (m) Sample Type Date Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	MW4 7.00 Water(GW/SW) 21/09/2015 22/09/2015 150922-33 12103784	Static Water(GW/SW) 21/09/2015 22/09/2015 150922-33 12103787				
Component	LOD/Units	Method	-10					
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174	<10	<10				
	<10 µg/i	TN174	<10					
Aliphatics >C21-C35 (aq)	<10 µg/l	IM174	<10	<10				

ALcontrol Labo	ratories		CERTI					Validated
SDC: 1500	222.23					Order Number		
SDG: 1503 Job: H_U Client Beference: 4623	922-33 IRS_WIM-28 70429	32	Customer: AE			Report Number:	331469	
EPH CWG (Aromatic) A		3C (W)	Attention. Fr			Superseded Report		
Results Legend	(queous (Customer Sample R	Active	Dup	EB	MW1	MW2	MW3
M mCERTS accredited. aq Aqueous / settled sample. diss.filt Dissolved / filtered sample. tot.unfilt Total / unfiltered sample. * Subcontracted test.		Depth (m) Sample Type Date Sampled	Water(GW/SW) 21/09/2015	7.00 Water(GW/SW) 21/09/2015	Water(GW/SW) 21/09/2015	7.25 Water(GW/SW) 21/09/2015	6.91 Water(GW/SW) 21/09/2015	7.00 Water(GW/SW) 21/09/2015
** % recovery of the surrogate stan check the efficiency of the metho	dard to d. The	Sampled Time Date Received	22/09/2015	22/09/2015	22/09/2015	22/09/2015	. 22/09/2015	22/09/2015
samples aren't corrected for the (F) Trigger breach confirmed	recovery	SDG Ref Lab Sample No.(s)	150922-33 12103788	150922-33 12103785	150922-33 12103786	150922-33 12103780	150922-33 12103781	150922-33 12103783
1-5&+§@ Sample deviation (see appendix)	L OD/Units	AGS Reference						
Aromatics >EC12-EC16	<10 µg/	TM174	<10	<10	<10	<10	<10	<10
(aq) Aromatics >EC16-EC21	<10 µg/	I TM174	<10	<10	<10	<10	<10	<10
(aq)	<10.00		<10	<10	<10	<10	<10	<10
(aq)	< 10 µg/	1 11/11/4	<10	<10	<10	<10	<10	<10

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	Siatorioo		CERT	IFICATE OF A	NALYSIS			, and to a
SDG: 150 Job: H_ Oliver 1 Defense 400	0922-33 URS_WIM-2	82	Location: S Customer: A	hell Blackhorse ECOM		Order Number: Report Number:	331469	
FPH CWG (Aromatic)		GC (W)	Attention: P			Superseded Report		
Results Legend ISO17025 accredited. M mCERTS accredited. dis.filt Dissolved / filtered sample. diss.filt Dissolved / filtered sample. Subcontracted test. * % recovery of the surrogate sta check the efficiency of the mett results of individual compound samples areni corrected for the	andard to hod. The Is within e recovery	Customer Sample R Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref	MW4 7.00 Water(GW/SW) 21/09/2015 22/09/2015 150922-33 12103784	Static Water(GW/SW) 21/09/2015 22/09/2015 150922-33 12103787				
(F) Trigger breach confirmed 1-5&+§@ Sample deviation (see appendix	x)	Lab Sample No.(s) AGS Reference	12103704	12103707				
Component Aromatics >EC12-EC16	LOD/Uni <10 μg	ts Method j/l TM174	<10	<10				
(aq) Aromatics >EC16-EC21	<10 µg	j/l TM174	<10	<10				
(aq) Aromatics >EC21-EC35	<10 µc	1/I TM174	<10	<10				
(aq)		,						

ALcontrol La	aboratories		CERTI	FICATE OF A	NALYSIS			Validated
SDG: Job: Client Reference:	150922-33 H_URS_WIM-2 46370438	282	Location: Sr Customer: AE Attention: Pr	ell Blackhorse ECOM il Allen		Order Number: Report Number: Superseded Repo	331469 ort:	
GRO by GC-FID (W	/)							
Results Legenc ISO17025 accredited. M mCERTS accredited. Aqueous / settled sample diss.filt Dissolved / filtered sampli tot.infit Total / unfiltered sample subcontracted test. ** % recovery of the surrog: check the efficiency of th results of individual com samples aren't corrected (F) Trigger breach confirmed 15&+§@ Sample deviation (see ap	e. le. 	Customer Sample R Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	Active Water(GW/SW) 21/09/2015 22/09/2015 150922-33 12103788	Dup 7.00 Water(GW/SW) 21/09/2015 22/09/2015 150922-33 12103785	EB Water(GW/SW) 21/09/2015 22/09/2015 150922-33 12103786	MW1 7.25 Water(GW/SW) 21/09/2015 22/09/2015 150922-33 12103780	MW2 6.91 Water(GW/SW) 21/09/2015 22/09/2015 150922-33 12103781	MW3 7.00 Water(GW/SW) 21/09/2015 22/09/2015 150922-33 12103783
Component	LOD/Un	its Method						
GRO Surrogate % recovery**	%	TM245	104	98	111	99	97	98
Aliphatics >C5-C6	<10 µį	g/l TM245	<10	<10	<10	<10	<10	<10
Aliphatics >C6-C8	<10 µ(g/l TM245	<10	<10	<10	<10	<10	<10
Aliphatics >C8-C10	<10 µ	g/l TM245	<10	<10	<10	<10	<10	<10
Aliphatics >C10-C12	<10 µ	g/I TM245	<10	<10	<10	<10	<10	<10
Aromatics >EC5-EC7	<10 µ	g/l TM245	<10	<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µ	g/l TM245	<10	<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg	g/I TM245	<10	<10	<10	<10	<10	<10
Aromatics >EC10-EC12	2 <10 µ	g/I TM245	<10	<10	<10	<10	<10	<10

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GRO by GC-FID (W)					· · ·	
Results Legend		Customer Sample R	MW4	Static		
M mCERTS accredited.						
diss.filt Dissolved / filtered sample.		Depth (m) Sample Type	7.00 Water(GW/SW)	Water(GW/SW)		
* Subcontracted test.	urd to	Date Sampled	21/09/2015	21/09/2015		
check the efficiency of the method.	The	Date Received	22/09/2015	22/09/2015		
samples aren't corrected for the reaction of t	covery	SDG Ref Lab Sample No (s)	150922-33 12103784	150922-33 12103787		
1-5&+§@ Sample deviation (see appendix)		AGS Reference				
Component	LOD/Unit	ts Method	110	110		
recovery**	70	1101245	110	110		
Aliphatics >C5-C6	<10 µg	/l TM245	<10	<10		
Aliphatics >C6-C8	<10 µg	/I TM245	<10	<10		
Aliphatics >C8-C10	<10 µg	/l TM245	<10	<10		
Aliphatics >C10-C12	<10 µg	/I TM245	<10	<10		
Aromatics >EC5-EC7	<10 µg	/I TM245	<10	<10		
Aromatics >EC7-EC8	<10 µg	/I TM245	<10	<10		
Aromatics >EC8-EC10	<10 µg	/l TM245	<10	<10		
Aromatics >EC10-EC12	<10 µg	/l TM245	<10	<10		

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SDG: Job:	150922-33 H_URS_WIM 46370438	-282	Location: Customer:	Shell Blackhorse AECOM Phil Allen	ANAL 1 515	Order Number: Report Number: Superseded Repo	331469 rt:	
PAH Spec MS - Agu			Attention			- Cupercould Repo		
Results Legend	eous (W)	Customer Sample R	Active	Dup	EB	MW1	MW2	MW3
# ISO17025 accredited. M mCERTS accredited. aq Aqueous / settled sample. diss.filt Dissolved / filtered sample. tot.unfilt Total / unfiltered sample. Subcontracted test. % recovery of the surrogat check the efficiency of the results of individual compo samples aren't corrected fc (F) Trigger breach confirmed	method. The pounds within or the recovery	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s)	Water(GW/SW) 21/09/2015 22/09/2015 150922-33 12103788	7.00 Water(GW/SW) 21/09/2015 22/09/2015 150922-33 12103785	Water(GW/SW) 21/09/2015 22/09/2015 150922-33 12103786	7.25 Water(GW/SW) 21/09/2015 	6.91 Water(GW/SW) 21/09/2015 22/09/2015 150922-33 12103781	7.00 Water(GW/SW) 21/09/2015 2209/2015 150922-33 12103783
1-5&+§@ Sample deviation (see apport	endix)	AGS Reference						
Naphthalene (aq)	<0.1	µg/l TM178	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene (aq)	<0.0 ⁻	15 TM178	<0.015	# <0.015 # +	<0.015	* <0.015 #	<0.015	<0.015
Acenaphthylene (aq)	<0.0	11 TM178	<0.011		<0.011 #	* <0.011 #	* <0.011 #	<0.011 #
Fluoranthene (aq)	со.0 <0.0	17 TM178	<0.017	# <0.017	<0.017 ± ±	* <0.017 #	* <0.017 #	<0.017 #
Anthracene (aq)	۰.0° µg/l	15 TM178	<0.015	# <0.015 # #	<0.015 # #	<0.015 #	<0.015 #	<0.015
Phenanthrene (aq)	0.02× µg/l	22 TM178	<0.022	<0.022 #	<0.022 # #	<0.022 #	<0.022	<0.022 #
Fluorene (aq)	<0.0 [°] µg/l	14 TM178	<0.014	<0.014 # #	<0.014	<0.014 #	<0.014	<0.014 #
Chrysene (aq)	<0.0 [°] µg/l	13 TM178	<0.013	<0.013	<0.013	<0.013 #	<0.013	<0.013
Pyrene (aq)	0.0 ⁻ µg/l	15 TM178	<0.015	<0.015 # #	<0.015	<0.015 #	<0.015 #	<0.015
Benzo(a)anthracene (aq)) <0.0 [.] µg/l	17 TM178	<0.017	<0.017 #	<0.017 # #	<0.017 #	<0.017 #	<0.017 #
Benzo(b)fluoranthene (ad	q) <0.02 µg/l	23 TM178	<0.023	<0.023 #	<0.023 #	<0.023 #	<0.023 #	<0.023
Benzo(k)fluoranthene (ac	q) <0.02 µg/l	27 TM178	<0.027	<0.027 ##	<0.027 ± #	<0.027 #	<0.027	<0.027
Benzo(a)pyrene (aq)	0.00> µg/l	09 TM178	<0.009	<0.009 ##	<0.009 ± #	<0.009 #	<0.009	<0.009
Dibenzo(a,h)anthracene (aq)	0.0 [.] µg/l	16 TM178	<0.016	<0.016 # #	<0.016 # #	<0.016 #	<0.016	<0.016
Benzo(g,h,ı)perylene (aq) <0.0 [.] μg/l	16 IM178	<0.016	<0.016	<0.016	<0.016 #	<0.016	<0.016
(aq)	<0.0 ⁻ µg/l		<0.014	<0.014	<0.014	<0.014 #	<0.014 #	<0.014
USEPA 16 (aq)	<0.32 µg/l	44 IM178	<0.344	<0.344	<0.344	<0.344	<0.344	<0.344

ALcontrol La	aboratories	6	CER [.]	TIFICATE OF A	NALYSIS			Validated
SDG: Job: Client Reference:	150922-33 H_URS_WIM- 46370438	-282	Location: Customer: Attention:	Shell Blackhorse AECOM Phil Allen		Order Number: Report Number: Superseded Report	331469 rt:	
PAH Spec MS - Agu	ieous (W)							
Results Legend # ISO17025 accredited.		Customer Sample R	MW4	Static				
M mCERTS accredited. aq Aqueous / settled sample diss.filt Dissolved / filtered sample tot.unfit Total / unfiltered sample. * Subcontracted test. * % recovery of the surroga check the efficiency of the results of individual com	e. e. e method. The sounds within	Depth (m) Sample Type Date Sampled Sampled Time Date Received	7.00 Water(GW/SW) 21/09/2015 22/09/2015	Water(GW/SW) 21/09/2015 22/09/2015				
samples aren't corrected (F) Trigger breach confirmed 1-5&+\$@ Sample deviation (see an	for the recovery	SDG Ref Lab Sample No.(s)	150922-33 12103784	150922-33 12103787				
Component	LOD/Ur	nits Method						
Naphthalene (aq)	<0.1 μ	ug/l TM178	<0.1	<0.1				
Acenaphthene (aq)	<0.01	15 TM178	<0.015	# # <0.015				
Acenaphthylene (aq)	μg/l <0.01	11 TM178	<0.011	# #				
Fluoranthene (aq)	μg/l <0.01	17 TM178	<0.017	# #				
Anthracene (ag)	μg/l <0.01	15 TM178	<0.015	# #				
Phenanthrene (ag)	μg/l	22 TM178	<0.022	# #				
	μg/l		~0.022	# #				
riuorene (aq)	0.0140.01µg/l	14 IM178	<0.014	<0.014 # #				
Chrysene (aq)	0.0140.01µg/I	13 TM178	<0.013	<0.013 ##				
Pyrene (aq)	0.01	15 TM178	<0.015	<0.015 # #				
Benzo(a)anthracene (ac	() <0.01 ug/l	17 TM178	<0.017	<0.017				
Benzo(b)fluoranthene (a	aq) <0.02	23 TM178	<0.023	// // // // // // // // // // // // //				
Benzo(k)fluoranthene (a	iq) <0.02	27 TM178	<0.027	# <0.027				
Benzo(a)pyrene (aq)	µg/i <0.00)9 TM178	<0.009	# # #				
Dibenzo(a,h)anthracene	μg/l <0.01	16 TM178	<0.016	# #				
(aq) Benzo(g,h,i)perylene (ad	μg/I (p	16 TM178	<0.016	# #				
Indeno(1,2,3-cd)pyrene	μg/l <0.01	14 TM178	<0.014	# #				
(aq) PAH, Total Detected	μg/l <0.34	44 TM178	<0.344	# #				
USEPA 16 (aq)	µg/l							

	450000 00		CERT		NALYSIS			-
SDG: Job: Client Reference:	150922-33 H_URS_WIM-282 46370438		Location: S Customer: A Attention: F	Shell Blackhorse NECOM Phil Allen		Order Number: Report Number: Superseded Repor	331469 t :	
VOC MS (W)					-			
Results Legend # ISO17025 accredited. M mCERTS accredited. aq Aqueous / settled sample.	Cu	stomer Sample R	Active	Dup	EB	MW1	MW2	MW3
diss.filt Dissolved / filtered sample tot.unfilt Total / unfiltered sample. * Subcontracted test. ** % recovery of the surrogat	e. te standard to	Sample Type Date Sampled Sampled Time	Water(GW/SW) 21/09/2015	Water(GW/SW) 21/09/2015	Water(GW/SW) 21/09/2015	Water(GW/SW) 21/09/2015	Water(GW/SW) 21/09/2015	Water(GW/SW) 21/09/2015
check the efficiency of the results of individual comp samples aren't corrected fi (F) Trigger breach confirmed	method. The ounds within or the recovery	Date Received SDG Ref ab Sample No.(s)	22/09/2015 150922-33 12103788	22/09/2015 150922-33 12103785	22/09/2015 150922-33 12103786	22/09/2015 150922-33 12103780	22/09/2015 150922-33 12103781	22/09/2015 150922-33 12103783
1-5&+§@ Sample deviation (see app Component	LOD/Units	AGS Reference Method						
Toluene-d8**	%	TM208	104	105	104	104	105	105
Methyl tertiary butyl ethe (MTBE)	r <1 μg/l	TM208	<1	<1 # #	<1 #	<1 #	<1 #	<1 #
Benzene	<1 µg/l	TM208	<1	<1 # #	<1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208	<1	<1 # #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208	<1	<1 # #	<1 #	<1 #	<1 #	<1 #
m,p-Xylene	<1 µg/l	TM208	<1	<1 # #	<1 #	<1 #	<1 #	<1 #
o-Xylene	<1 µg/l	TM208	<1	<1 # #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208	<1	<1 # #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

voc	MS (W)							· · ·	
	Results Legend		Customer Sample R	MW4	Static		Trip Blank		
# M aq diss.filt tot.unfilt	ISO17025 accredited. mCERTS accredited. Aqueous / settled sample. Dissolved / filtered sample. Total / unfiltered sample.		Depth (m) Sample Type	7.00 Water(GW/SW)	Water GW/SW	/)	Water(GW/SW)		
**	Subcontracted test. % recovery of the surrogate standa check the efficiency of the method. results of individual compounds wi samples aren't corrected for the re-	ard to . The ithin covery	Date Sampled Sampled Time Date Received SDG Ref	22/09/2015 22/09/2015 150922-33	22/09/2015		- 22/09/2015 150922-33		
(F) 1-5&+§@	Trigger breach confirmed Sample deviation (see appendix)		Lab Sample No.(s) AGS Reference	12103784	12103787		12103789		
Compo	onent	LOD/Uni	its Method						
Tolue	ne-d8**	%	TM208	105	105				
Methy (MTB	I tertiary butyl ether E)	<1 µg	/I TM208	<1 #	<1	#			
Benze	ene	<1 µg	/I TM208	<1 #	<1	#	<1 §	#	
Tolue	ne	<1 µg	/I TM208	<1 #	<1	#	<1 §	#	
Ethylk	benzene	<1 µg	/I TM208	<1 #	<1	#	<1 §	#	
m,p-X	ylene	<1 µg	/I TM208	<1 #	<1	#	<1 §	#	
o-Xyle	ene	<1 µg	/I TM208	<1 #	<1	#	<1 §	#	
tert-Ai (TAM	myl methyl ether ∃)	<1 µg	/I TM208	<1 #	<1	#			
Sum o	of detected Xylenes	<2 µg	/I TM208				<2	§	

CERTIFICATE OF ANALYSIS

Validated

SDG:	150922-33	Location:	Shell Blackhorse	Order Number:	
Job:	H_URS_WIM-282	Customer:	AECOM	Report Number:	331469
Client Reference:	46370438	Attention:	Phil Allen	Superseded Report:	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample ¹	Surrogate Corrected
TM061	Method for the Determination of EPH,Massachusetts Dept.of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)		
TM125	DIN 38405 D17	Determination of Ferrous Iron		
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS		
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID		
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters		
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters		
TM223	ASTM D-1945-91	Determination of Dissolved C1-7 Hydrocarbon gases in waters		
TM241	Methods for the Examination of Waters and Associated Materials; Chromium in Raw and Potable Waters and Sewage Effluents 1980.	The Determination of Hexavalent Chromium in Waters and Leachates using the Kone Analyser		
TM245	By GC-FID	Determination of GRO by Headspace in waters		
TM289		Determination of Oxygenates in Waters by Headspace/GC-MS		

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

CERTIFICATE OF ANALYSIS

SDG:	150922-33	Location:	Shell Blackhorse	Order Number:	331469
Job:	H_URS_WIM-282	Customer:	AECOM	Report Number:	
Client Reference:	46370438	Attention:	Phil Allen	Superseded Report:	

Test Completion Dates

Lab Sample No(s)	12103788	12103785	12103786	12103780	12103781	12103783	12103784	12103787	12103789
Customer Sample Ref.	Active	Dup	EB	MW1	MW2	MW3	MW4	Static	Trip Blank
AGS Ref.									
Depth		7.00		7.25	6.91	7.00	7.00		
Туре	LIQUID								
Anions by Kone (w)	28-Sep-2015								
Determination of Dissolved Gases		29-Sep-2015	29-Sep-2015	29-Sep-2015	29-Sep-2015	29-Sep-2015	29-Sep-2015		
Dissolved Metals by ICP-MS	29-Sep-2015								
EPH CWG (Aliphatic) Aqueous GC (W)	26-Sep-2015								
EPH CWG (Aromatic) Aqueous GC (W)	26-Sep-2015								
Ferrous Iron	24-Sep-2015								
GRO by GC-FID (W)	24-Sep-2015								
Hexavalent Chromium (w)	24-Sep-2015								
Mercury Dissolved	25-Sep-2015								
Nitrite by Kone (w)	26-Sep-2015								
Oxygenates (W)	24-Sep-2015	23-Sep-2015	23-Sep-2015	23-Sep-2015	23-Sep-2015	23-Sep-2015	23-Sep-2015	24-Sep-2015	
PAH Spec MS - Aqueous (W)	25-Sep-2015								
TPH CWG (W)	26-Sep-2015								
VOC MS (W)	26-Sep-2015								

150922-33

46370438

H_URS_WIM-282

CERTIFICATE OF ANALYSIS

Location: Shell Blackhorse AECOM Customer: Attention: Phil Allen

Order Number: Report Number: Superseded Report:

331469

ASSOCIATED AQC DATA

Anions by Kone (w)

Client Reference:

SDG:

Job:

Component	Method Code	QC 1264	QC 1275
Chloride	TM184		95.5
		94.64 : 106.82	94.64 : 106.82
Phosphate (Ortho as	TM184		104.4
PO4)		96.40 : 108.40	96.40 : 108.40
Sulphate (soluble)	TM184	100.4	96.8
		96.47 : 104.74	96.47 : 104.74
TON as NO3	TM184	107.5	101.0
		93.05 : 112.12	93.05 : 112.12

Determination of Dissolved Gases

Component	Method Code	QC 1221
Carbon Dioxide Dissolved Raw	TM223	52.6 85.00 : 115.00
Ethane Dissolved Raw	TM223	99.99 96.29 : 102.65
Methane Dissolved Raw	TM223	97.54 92.64 : 110.66
Propane Dissolved Raw	TM223	100.32 91.79 : 106.67

Dissolved Metals by ICP-MS

Component	Method Code	QC 1208	QC 1216
Aluminium	TM152	102.0 88.58 : 117.87	107.07 91.20 : 114.81
Antimony	TM152	98.4 87.01 : 109.33	98.4 81.22 : 110.09
Arsenic	TM152	99.47 89.45 : 113.51	100.27 90.72 : 113.37
Barium	TM152	99.07 90.47 : 113.85	102.53 89.19 : 113.10
Beryllium	TM152	100.53 84.68 : 120.26	100.53 84.91 : 118.83
Boron	TM152	101.47 82.95 : 121.47	104.53 83.37 : 121.28
Cadmium	TM152	104.27 90.40 : 113.29	102.93 88.71 : 110.88
Chromium	TM152	101.87 90.01 : 114.05	102.53 89.62 : 113.97
Cobalt	TM152	102.0 87.14 : 117.85	103.2 88.94 : 114.00
Copper	TM152	97.47 88.43 : 114.27	102.53 88.20 : 113.61
Lead	TM152	96.0 89.53 : 109.90	101.2 86.09 : 113.27
Lithium	TM152	103.2 84.32 : 123.11	106.4 88.12 : 120.26
Manganese	TM152	103.6 91.43 : 113.17	104.0 90.23 : 113.36
Molybdenum	TM152	98.27 80.73 : 113.85	96.93 86.81 : 113.52

CERTIFICATE OF ANALYSIS

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SDG:	150922-33	Location:	Shell Blackhorse	
Job:	H_URS_WIM-282	Customer:	AECOM	
Client Reference:	46370438	Attention:	Phil Allen	
Discoluted Materia				

Order Number: Report Number: 331469 Superseded Report:

Diago	VO C	Matala	b	
1.0880	iveo	Meials	101	
01000		motare	\sim ,	

		OC 1208	OC 1216
All shared	T1450	Q0 1200	QU ILIU
Nickel	TM152	103.6	104.93
		87.68 : 113.94	87.97 : 112.75
Phosphorus	TM152	100.0	105.2
		86.68 : 118.34	88.63 : 116.49
Selenium	TM152	105.47	100.27
		91.03 : 113.34	90.82 : 110.60
Strontium	TM152	104.13	103.47
		90.44 : 114.09	88.45 : 113.83
Tellurium	TM152	95.87	95.2
		80.93 : 116.91	88.98 : 112.40
Thallium	TM152	93.73	98.53
		90.27 : 111.31	86.36 : 110.64
Tin	TM152	91.73	102.53
		83.07 : 112.37	85.77 : 112.09
Titanium	TM152	90.8	109.47
		92.65 : 111.58	91.39 : 111.36
Uranium	TM152	94.4	96.13
		88.60 : 110.35	86.02 : 110.14
Vanadium	TM152	103.33	104.53
		88.43 : 116.60	89.62 : 114.91
Zinc	TM152	104 13	106 13
		89 84 · 113 06	90 00 · 112 54
		00:01:110:00	00.001112.04

EPH CWG (Aliphatic) Aqueous GC (W)

Component	Method Code	QC 1264
Total Aliphatics >C12-C35	TM174	92.29 66.67 : 110.42

EPH CWG (Aromatic) Aqueous GC (W)

Component	Method Code	QC 1280
Total Aromatics >EC12-EC35	TM174	93.33 63.00 : 121.00

Ferrous Iron

Component	Method Code	QC 1207
Ferrous Iron	TM125	95.0 94.00 : 102.00

GRO by GC-FID (W)

CERTIFICATE OF ANALYSIS

Validated

- <u></u>					
SDG:	150922-33	Location:	Shell Blackhorse	Order Number:	
Job:	H_URS_WIM-282	Customer:	AECOM	Report Number:	331469
Client Reference:	46370438	Attention:	Phil Allen	Superseded Report:	
	(1.8.1)				

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Component	Method Code	QC 1294
Benzene by GC	TM245	95.0 77.50 : 122.50
Ethylbenzene by GC	TM245	92.5 77.50 : 122.50
m & p Xylene by GC	TM245	92.75 77.50 : 122.50
MTBE GC-FID	TM245	100.5 77.50 : 122.50
o Xylene by GC	TM245	95.5 77.50 : 122.50
QC	TM245	81.71 74.88 : 125.54
Toluene by GC	TM245	94.5 77.50 : 122.50

Hexavalent Chromium (w)

Component	Method Code	QC 1221	QC 1244
Hexavalent Chromium	TM241	101.6 91.10 : 105.14	101.8 91.10 : 105.14

Mercury Dissolved

Component	Method Code	QC 1255	QC 1291
Mercury Dissolved	TM183	114.0	101.0
(CVAF)		73.51 : 120.83	73.51 : 120.83

Oxygenates (W)

Component	Method Code	QC 1224	QC 1270
Benzene	TM289	96.0 87.69 : 119.72	100.5 87.69 : 119.72
Diisopropyl ether	TM289	95.5 86.70 : 122.79	101.0 86.70 : 122.79
Ethanol	TM289	120.6 74.12 : 156.61	125.4 74.12 : 156.61
Ethylbenzene	TM289	93.0 84.52 : 113.38	98.0 84.52 : 113.38
o-Xylene	TM289	94.5 84.40 : 112.41	100.0 84.40 : 112.41
p/m-Xylene	TM289	94.0 83.20 : 115.01	99.5 83.20 : 115.01
tert Butanol	TM289	118.0 70.51 : 143.48	123.0 70.51 : 143.48
tert-amyl methyl ether	TM289	97.0 78.92 : 124.29	101.0 78.92 : 124.29

CERTIFICATE OF ANALYSIS

SDG: Job:	150922-33 H_URS_WIM-282	Location: Customer:	Shell Blackhorse AECOM
Client Reference:	46370438	Attention:	Phil Allen
Oxygenates (W)			

Order Number: Report Number: 33 Superseded Report:

331469

Validated

		QC 1224	QC 1270
tert-butyl ethyl ether	TM289	97.5 78.17 : 124.34	103.0 78.17 : 124.34
tert-butyl methyl ether	TM289	99.5 87.75 : 127.35	105.0 87.75 : 127.35
Toluene	TM289	94.5 79.08 : 122.51	99.5 79.08 : 122.51

PAH Spec MS - Aqueous (W)

Component	Method Code	QC 1212	QC 1233
Acenaphthene by GCMS	TM178	100.0 91.90 : 109.30	97.5 91.90 : 109.30
Acenaphthylene by GCMS	TM178	96.5 87.74 : 109.69	99.0 87.74 : 109.69
Anthracene by GCMS	TM178	99.0 89.70 : 111.80	100.0 89.70 : 111.80
Benz(a)anthracene by GCMS	TM178	100.0 88.64 : 112.43	99.5 88.64 : 112.43
Benzo(a)pyrene by GCMS	TM178	105.0 85.00 : 130.00	111.0 85.00 : 130.00
Benzo(b)fluoranthene by GCMS	TM178	108.5 85.50 : 130.50	113.0 85.50 : 130.50
Benzo(ghi)perylene by GCMS	TM178	98.5 81.04 : 111.10	98.5 81.04 : 111.10
Benzo(k)fluoranthene by GCMS	TM178	107.5 87.50 : 132.50	113.5 87.50 : 132.50
Chrysene by GCMS	TM178	104.0 89.75 : 115.25	102.0 89.75 : 115.25
Dibenzo(ah)anthracene by GCMS	TM178	95.0 77.91 : 107.68	96.0 77.91 : 107.68
Fluoranthene by GCMS	TM178	102.0 86.85 : 115.35	100.5 86.85 : 115.35
Fluorene by GCMS	TM178	99.5 92.39 : 113.85	106.5 92.39 : 113.85
Indeno(123cd)pyrene by GCMS	TM178	104.0 84.94 : 119.98	105.5 84.94 : 119.98
Naphthalene by GCMS	TM178	100.0 88.20 : 115.80	96.5 88.20 : 115.80
Phenanthrene by GCMS	TM178	101.5 88.40 : 114.20	100.0 88.40 : 114.20
Pyrene by GCMS	TM178	100.5 87.50 : 116.00	101.5 87.50 : 116.00

VOC MS (W)

Component	Method Code	QC 1212
1,1,1,2-Tetrachloroethan e	TM208	92.5 87.29 : 112.22
1,1,1-Trichloroethane	TM208	109.0 83.02 : 113.68
1,1-Dichloroethane	TM208	120.5 77.85 : 123.56
1,2-Dichloroethane	TM208	125.5 80.96 : 124.37

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CERTIFICATE OF ANALYSIS

Validated

SDG: Job: Client Reference:	150922-33 H_URS_WIM-282 46370438	Location: Customer: Attention:	Shell Blackhorse AECOM Phil Allen	Order Number: Report Number: Superseded Report:	331469
VOC MS (W)					

		QC 1212
2-Chlorotoluene	TM208	85.0 82.27 : 113.28
4-Chlorotoluene	TM208	84.5 82.43 : 113.78
Benzene	TM208	112.5 85.85 : 118.22
Bromomethane	TM208	100.5 78.68 : 126.84
Carbontetrachloride	TM208	109.5 82.06 : 117.49
Chlorobenzene	TM208	93.5 77.50 : 122.50
Chloroform	TM208	116.5 77.50 : 122.50
Chloromethane	TM208	134.5 64.99 : 145.80
Cis-1,2-Dichloroethene	TM208	122.0 87.80 : 126.43
Dichloromethane	TM208	121.5 80.45 : 125.21
Ethylbenzene	TM208	93.5 81.00 : 111.00
Hexachlorobutadiene	TM208	90.0 79.39 : 111.07
o-Xylene	TM208	92.5 84.32 : 113.42
p/m-Xylene	TM208	90.25 82.25 : 112.25
Tert-butyl methyl ether	TM208	109.5 76.57 : 125.98
Tetrachloroethene	TM208	84.0 80.21 : 115.87
Toluene	TM208	96.0 85.71 : 113.18
Trichloroethene	TM208	98.0 87.32 : 112.88
Vinyl Chloride	TM208	106.0 67.57 : 130.24

The above information details the reference name of the analytical quality control sample (AQC) that has been run with the samples contained in this report for the different methods of analysis.

The figure detailed is the percentage recovery result for the AQC.

The subscript numbers below are the percentage recovery lower control limit (LCL) and the upper control limit (UCL). The percentage recovery result for the AQC should be between these limits to be statistically in control.










































G: :: ent Reference:	150922-33 H_URS_WIM-282 46370438	Location: Customer: Attention:	Shell Blackhorse AECOM Phil Allen	Order Number: Report Number: Superseded Report:	331469	
			Chromatogram	l		
lysis: GRO by	GC-FID (W)	Sample No : Sample ID :	12111604 Dup	Depth : 7.00		
		101116	M GRO W(DATA Chem 7			
	ø	121110	J4_GRO_VV.DATA - Chenry			
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CERTIFICATE OF ANALYSIS

SDG:	150922-33	Location:	Shell Blackhors
Job:	H_URS_WIM-282	Customer:	AECOM
Client Reference:	46370438	Attention:	Phil Allen

Appendix

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

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

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

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

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

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

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

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

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

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

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

12. Results relate only to the items tested

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

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

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

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

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

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

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

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

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

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

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

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

Order Number: Report Number: Superseded Report:

SOLID MATRICES EXTRACTION SUMMARY

331469

ANALYSIS	d/C Or Wet	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
SOLVENT EXTRACTABLE MATTER	D&C	DOM	SOXTHERM	GRAVIMETRIC
CYCLOHEXANE EXT. MATTER	D&C	CYCLOHEXANE	SOXTHERM	GRAVIMETRIC
THIN LAYER CHROMATOGRAPHY	D&C	DOM	SOXTHERM	ATROSCAN
ELEMENTALSULPHUR	D&C	DOM	SOXTHERM	HPLC
PHENOLSBYGOMS	WET	DOM	SOXTHERM	GCMS
HERBICIDES	D&C	HEXANEACETONE	SOXTHERM	GCMS
PESTICIDES	D&C	HEXANEACETONE	SOXTHERM	GCMS
EPH (DRO)	D&C	HEXANEACETONE	END OVER END	GCFD
EPH (MINOL)	D&C	HEXANEACETONE	END OVER END	GCFD
EPH (OLEANED UP)	D&C	HEXANEACETONE	ENDOWEREND	GCFD
EPH CWG BYGC	D&C	HEXANEACETONE	END OVER END	GCFID
POB TOT / POB CON	D&C	HEXANEACETONE	END OVER END	GCMS
POLYAROMATIC HYDROCARBONS (MS)	WET	HEXANEACETONE	MCROWAVE TM218.	GCMS
C8-C40(C6-C40)EZ FLASH	WET	HEXANEACETONE	SHAVER	GCEZ
POL VAROMATIC HYDROCARBONS RARD GC	WET	HEXANEACETONE	SHAVER	GCEZ
SEM VOLATILEORGANIC COMPOUNDS	WET	DOMACETONE	SONICATE	GCMS

LIQUID MATRICES EXTRACTION SUMMARY

ANALYSIS	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSS
PAHMS	HEXANE	STIRREDEXTRACTION(STIR-BAR)	GCMS
BH	HEXANE	STIRREDEXTRACTION(STIR-BAR)	GCFID
EPH CWG	HEXANE	STIRREDEXTRACTION(STIR-BAR)	GCFID
MNERALOIL	HEXANE	STIRREDEXTRACTION(STIR-BAR)	GCFID
POB 7 CONGENERS	HEXANE	STIRREDEXTRACTION(STIR-BAR)	GCMS
PCB TOTAL	HEXANE	STIRREDEXTRACTION(STIR-BAR)	GCMS
SVOC	DOM	LIQUID'LIQUID SHAKE	GCMS
FREESULPHUR	DOM	SOLID PHASE EXTRACTION	HPLC
PEST 00P/0PP	DOM	LIQUID'LIQUID SHAKE	GCMS
TRAZINE HERBS	DOM	LIQUID'LIQUID SHAKE	GCMS
PHENOLSMS	DOM	SOLID PHASE EXTRACTION	GCMS
TIH by INFRARED (IR)	TCE	LIQUID'LIQUID SHAKE	HPLC
MNERALOIL by R	TCE	LIQUID'LIQUID SHAKE	HPLC
GLYCOLS	NONE	DIRECT NJECTION	GCMS

Identification of Asbestos in Bulk Materials

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

Asbestos Type	Common Name
Chrysofile	WhiteAsbestos
Amosite	BrownAsbestos
Croddate	Blue Asbestos
Fibrous Adinate	-
Florous Antrophylite	-
Fibrous Trendile	-

Visual Estimation Of Fibre Content

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

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

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

Validated

CERTIFICATE OF ANALYSIS

SDG:	150922-33	Location:	Shell Blackhorse	Order Number:	331469
Job:	H URS WIM-282	Customer:	AECOM	Report Number:	
Client Reference:	46370438	Attention:	Phil Allen	Superseded Report:	

Appendix General

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

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

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

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

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

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

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

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

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

11. Results relate only to the items tested.

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

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

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

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

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

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

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

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

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

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

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

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

Sample Deviations

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

Asbestos

Identification of Asbestos in Bulk Materials & Soils

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

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

Asbestos Type	Common Name
Chrysolie	WhiteAsbestos
Amosite	BrownAsbestos
Oroddalte	Blue Asbestos
Fibrous Adinoite	-
Fibrous Anthophylite	-
Fibrous Trendile	-

Visual Estimation Of Fibre Content

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

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

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



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

Attention: Phil Allen

CERTIFICATE OF ANALYSIS

Date: Customer: Sample Delivery Group (SDG): Your Reference: Location: Report No: 01 October 2015 H_URS_WIM 150923-55 46370438 Shell Blackhorse 331844

We received 4 samples on Wednesday September 23, 2015 and 4 of these samples were scheduled for analysis which was completed on Thursday October 01, 2015. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

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

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

Approved By:

Sonia McWhan Operations Manager

ALcontrol Laboratories Validated (**CERTIFICATE OF ANALYSIS** SDG: 150923-55 Location: Shell Blackhorse Order Number: H_URS_WIM-282 331844 Job: Customer: AECOM Report Number: **Client Reference:** 46370438 Attention: Phil Allen Superseded Report:

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
12111201	TRIP BLANK 4229		0.00 - 0.00	22/09/2015
12111197	VM 1 651		1.33	22/09/2015
12111199	VM 2 224		1.33	22/09/2015
12111200	VM 3 199		1.33	22/09/2015

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

	ALcontrol L	aborator	ies	~	ED	TIF				Validated
SDG: Job: Clien	t Reference:	150923-55 H_URS_W 46370438	; /IM-282	Location Custome Attention	= R : :	She AE Phi	EILE OF ANAL ISIS	Order Number: Report Number: Superseded Report:	331844	
GAS Result	ts Legend Test		Lab Sample	No(s)	12111201	12111199	12111200			
N	No Determina Possible	ation	Custom Sample Refe	er erence	TRIP BLANK 4229	VM 2 224	VM 3 199			
			AGS Refer	ence						
			Depth (m)	0.00 - 0.00	1.33	1.33			
			Contain	er	TD tube	TD tube	TD tube			
UST Ga	ases		All	NDPs: 0 Tests: 4	x)	(X	×			

CERTIFICATE OF ANALYSIS

Validated

SDG: 150923-55 Job: H URS WIM-282		Location: S Customer: A	Shell Blackhorse	Order Number: Report Number: 331844					
Client Reference:	46370438	}		Attention: F	Phil Allen		Superseded Rep	port:	
Results Lege	nd	Cust	omer Sample R	TRIP BLANK 4229	VM 1 651	VM 2 224	VM 3 199		
# ISO17025 accredited. M mCERTS accredited. aq Aqueous / settled samp	ble.		Dopth (m)	0.00	4.00	1.00	4.00		
diss.filt Dissolved / filtered sam tot.unfilt Total / unfiltered sample	nple. e.		Sample Type	0.00 - 0.00 Gas	Gas	Gas	1.33 Gas		
* Subcontracted test. ** % recovery of the surro	gate standard to		Date Sampled Sample Time	22/09/2015	22/09/2015	22/09/2015	22/09/2015		
check the efficiency of results of individual cor	the method. The mpounds within		Date Received SDG Ref	23/09/2015 150923-55	23/09/2015 150923-55	23/09/2015 150923-55	23/09/2015 150923-55		
(F) Trigger breach confirme	ed for the recovery	Lat	Sample No.(s)	12111201	12111197	12111199	12111200		
Component	appendix)	DD/Units	AGS Reference Method						
MTBE		ng	TM278	<10					
		ug/m³	TM278		<6.9	10	<6.9		
Hexane		ng	TM278	9.05					
		ug/m³	TM278		6.03	3.96	3.04		
DIPE		ng	TM278	<10					
		ug/m³	TM278		<6.9	<6.9	<6.9		
ETBE		ng	TM278	<10					
		ug/m³	TM278		<6.9	<6.9	<6.9		
Benzene		ng	TM278	<5					
		ug/m³	TM278		11.1	4.54	4.19		
TAME		ng	TM278	<10					
		ug/m³	TM278		<6.9	<6.9	<6.9		
Toluene		ng	TM278	2.83					
		ug/m³	TM278		59.1	36.5	13.9		
Octane		ng	TM278	<5					
		ug/m³	TM278		<3.45	<3.45	<3.45		
Ethylbenzene		ng	TM278	8.92					
		ug/m³	TM278		10.7	8.9	5.83		
p/m-Xylene		ng	TM278	5.74					
		ug/m³	TM278		31.1	26.3	13.1		
o-Xylene		ng	TM278	<2					
		ug/m³	TM278		11.4	9.77	5.36		
Decane		ng	TM278	<1.6					
		ug/m³	TM278		30.4	16.9	2.05		
1,2,3-Trimethylbenzen	ie	ng	TM278	<6					
		ug/m³	TM278		<4.14	<4.14	<4.14		
Dodecane		ng	TM278	<6					
		ug/m³	TM278		<4.14	<4.14	<4.14		
Naphthalene		ng	TM278	<4					
		ug/m³	TM278		<2.76	<2.76	<2.76		
1-Methylnaphthalene		ng	TM278	<8					
		ug/m³	TM278		<5.52	<5.52	<5.52		

CERTIFICATE OF ANALYSIS

Validated

Results Legend		Customer Sample R	TRIP BLANK 4229	VM 1 651	VM 2 224	VM 3 199	
M mCERTS accredited.							
diss.filt Dissolved / filtered sample.		Depth (m) Sample Type	0.00 - 0.00 Gas	1.33 Gas	1.33 Gas	1.33 Gas	
* Subcontracted test.		Date Sampled	22/09/2015	22/09/2015	22/09/2015	22/09/2015	
** % recovery of the surrogate standa check the efficiency of the method.	The	Sample Time Date Received	23/09/2015	23/09/2015	23/09/2015	23/09/2015	
results of individual compounds wi samples aren't corrected for the re-	ithin covery	SDG Ref	150923-55	150923-55	150923-55	150923-55	
(F) Trigger breach confirmed 1-5&+§@ Sample deviation (see appendix)		Lab Sample No.(s) AGS Reference	12111201	12111197	12111199	12111200	
Component	LOD/Un	its Method	-07				
GRU 06-012	ng	TM278	<67				
	ua/m	³ TM278		2250	1010	288	
	- 3						
							7

SDG: 150923-55 Location: Shell Blackhorse Order Number: Job: H_URS_WIM-282 Customer: AECOM Report Number: 331844	ALcontrol Laboratories CERTIFICATE OF ANALYSIS						Validated
Client Reference: 46370438 Attention: Phil Allen Superseded Report:	SDG: Job: Client Reference:	150923-55 H_URS_WIM-282 46370438	Location: Customer: Attention:	Shell Blackhorse AECOM Phil Allen	Order Number: Report Number: Superseded Report:	331844	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample ¹	Surrogate Corrected
TM278		Determination of Selective VOCs by TD-GC-MS	,	

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

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CERTIFICATE OF ANALYSIS

Validated

Shell Blackhorse SDG: 150923-55 Location: Order Number: H_URS_WIM-282 AECOM 331844 Job: Customer: Report Number: Client Reference: 46370438 Attention: Phil Allen . Superseded Report:

Test Completion Dates

Lab Sample No(s)	12111201	12111197	12111199	12111200
Customer Sample Ref.	TRIP BLANK 4229	VM 1 651	VM 2 224	VM 3 199
AGS Ref.				
Depth	0.00 - 0.00	1.33	1.33	1.33
Туре	GAS	GAS	GAS	GAS
UST Gases	01-Oct-2015	01-Oct-2015	01-Oct-2015	01-Oct-2015

CERTIFICATE OF ANALYSIS

SDG:	150923-55	Location:	Shell Blackhorse	Order Number:	331844
Job:	H_URS_WIM-282	Customer:	AECOM	Report Number:	
Client Reference:	46370438	Attention:	Phil Allen	Superseded Report:	

ASSOCIATED AQC DATA

UST Gases

Component	Method Code	QC 1238
1,2,3-Trimethylbenzene raw	TM278	91.0 85.00 : 115.00
1-Methylnaphthalene raw	TM278	91.2 85.00 : 115.00
Benzene raw	TM278	96.6 85.00 : 115.00
Decane raw	TM278	93.2 85.00 : 115.00
DIPE raw	TM278	97.0 85.00 : 115.00
Dodecane raw	TM278	97.0 85.00 : 115.00
ETBE raw	TM278	97.2 85.00 : 115.00
Ethylbenzene raw	TM278	94.6 85.00 : 115.00
GRO C6 - C12 raw	TM278	94.5 83.79 : 121.12
Hexane raw	TM278	99.8 85.00 : 115.00
MTBE raw	TM278	92.8 85.00 : 115.00
Naphthalene raw	TM278	90.2 85.00 : 115.00
Octane raw	TM278	96.0 85.00 : 115.00
o-Xylene raw	TM278	91.6 85.00 : 115.00
p/m-Xylene raw	TM278	94.1 85.00 : 115.00
TAME raw	TM278	98.0 85.00 : 115.00
Toluene raw	TM278	96.0 85.00 : 115.00

The above information details the reference name of the analytical quality control sample (AQC) that has been run with the samples contained in this report for the different methods of analysis.

The figure detailed is the percentage recovery result for the AQC.

The subscript numbers below are the percentage recovery lower control limit (LCL) and the upper control limit (UCL). The percentage recovery result for the AQC should be between these limits to be statistically in control.

CERTIFICATE OF ANALYSIS

SDG:	150923-55	Location:	Shell Blackhorse	Order Number:	
Job:	H_URS_WIM-282	Customer:	AECOM	Report Number:	331844
Client Reference:	46370438	Attention:	Phil Allen	Superseded Report:	

Appendix General

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

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

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

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

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

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

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

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

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

11. Results relate only to the items tested.

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

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

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

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

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

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

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

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

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

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

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

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

Sample Deviations

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

Asbestos

Identification of Asbestos in Bulk Materials & Soils

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

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

Asbestos Type	Common Name
Chrysolie	WhiteAsbestos
Amosite	BrownAsbestos
Orodolite	Blue Asbestos
Fibrous Adinaite	-
Fibrous Anthophylite	-
Fibrous Trendile	-

Visual Estimation Of Fibre Content

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

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

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



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

Attention: Phil Allen

CERTIFICATE OF ANALYSIS

Date: Customer: Sample Delivery Group (SDG): Your Reference: Location: Report No: 18 December 2015 H_URS_WIM 151202-56 46370438 Shell Blackhorse 342760

This report has been revised and directly supersedes 340898 in its entirety.

We received 4 samples on Wednesday December 02, 2015 and 4 of these samples were scheduled for analysis which was completed on Monday December 07, 2015. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

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

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

Approved By:

Sonia McWhan Operations Manager



Alcontrol Laboratories is a trading division of ALcontrol UK Limited Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No. 4057291.


Validated

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
12556160	MW201_0.65		0.65	01/12/2015
12556162	SB201_0.5		0.50	01/12/2015
12556164	SB202_0.8		0.80	01/12/2015
12556165	SB203_1.1		1.10	01/12/2015

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

SDG: 1 Job: H Client Reference: 4	51202-56 I_URS_WIM-282 6370438	Locatio Custom Attentic	n: She her: AE on: Phi	ell Black COM I Allen	horse		Ord Rep Sup	ler Number: port Number: perseded Report:	60479811 342760 340898	
SOLID			_	<u>د</u>	<u>د</u>					
Results Legend	Lab San	nple No(s)	2556	2556	2556	2556				
X Test			6160	6162	6164	6165				
No Determina Possible	tion Cus Sample	tomer Reference	MW201_0.65	SB201_0.5	SB202_0.8	SB203_1.1				
	AGS R	eference								
	Dep	th (m)	0.65	0.50	0.80	1.10				
	Con	tainer	60g VOC (ALE215) 250g Amber Jar 1kg TUB							
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 4	X	x	X	X				
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 4	x	X	X	x				
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 4	x	x	x	x				
GRO by GC-FID (S)	All	NDPs: 0 Tests: 4	x	X	x	×				
Oxygenates (S)	All	NDPs: 0 Tests: 4	x	x	X	x				
PAH by GCMS	All	NDPs: 0 Tests: 4	x	X	X	X				
Sample description	All	NDPs: 0 Tests: 4	x	x	x	×				
VOC MS (S)	All	NDPs: 0 Tests: 4	x	X	X	X				

Client Reference: 46370438

151202-56

H_URS_WIM-282

CERTIFICATE OF ANALYSIS

Location: Shell Blackhorse Customer: AECOM Attention: Phil Allen

 Order Number:
 60479811

 Report Number:
 342760

 Superseded Report:
 340898

Grain Sizes

SDG:

Job:

Sample Descriptions

very fine <0.	063mm fine 0.06	3mm - 0.1mm me	edium 0.1mm	n - 2mm coai	rse 2mm - 1	.0mm very co	arse >10m
Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Grain size	Inclusions	Inclusions 2
12556160	MW201_0.65	0.65	Dark Brown	Sand	0.1 - 2 mm	Stones	None
12556162	SB201_0.5	0.50	Dark Brown	Sand	0.1 - 2 mm	Brick	Stones
12556164	SB202_0.8	0.80	Dark Brown	Sand	> 10 mm	Stones	None
12556165	SB203_1.1	1.10	Dark Brown	Sand	0.1 - 2 mm	Stones	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 ocurring 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.

CERTIFICATE OF ANALYSIS

Results Legend	C	Sustomer Sample Ref.	MW201_0.65	SB201_0.5	SB202_0.8	SB203_1.1	
M mCERTS accredited. aq Aqueous / settled sample.		Donth (m)	0.05	0.50	0.00	4.40	
diss.filt Dissolved / filtered sample. tot.unfilt Total / unfiltered sample.		Sample Type	0.65 Soil/Solid	0.50 Soil/Solid	0.80 Soil/Solid	1.10 Soil/Solid	
* Subcontracted test. ** % recovery of the surrogate st check the officiency of the me	andard to	Date Sampled Sampled Time	01/12/2015	01/12/2015	01/12/2015	01/12/2015	
results of individual compoun samples aren't corrected for the	ds within the recovery	Date Received SDG Ref	02/12/2015 151202-56	02/12/2015 151202-56	02/12/2015 151202-56	02/12/2015 151202-56	
(F) Trigger breach confirmed 1-5&+§@ Sample deviation (see append	ix)	Lab Sample No.(s) AGS Reference	12556160	12556162	12556164	12556165	
Component	LOD/Uni	ts Method					
Moisture Content Ratio (% of as received sample)	%	PM024	8.2	8.9	1/	9.4	
Ethanol	<50 µg/l	kg TM288	<50	<50	<50	<50	
tert Butanol	<10 µg/l	kg TM288	<10	<10	<10	<10	
Diisopropyl ether	<1 µg/k	g TM288	<1	<1	<1	<1	
tert-butyl ethyl ether	<1 µg/k	g TM288	<1	<1	<1	<1	
		_					

CERTIFICATE OF ANALYSIS

* Subcontracted test. ** % recovery of the surrogate st	andard to	Date Sampled Sampled Time	01/12/2015	01/12/2015	01/12/2015	01/12/2015	
check the efficiency of the me results of individual compound	thod. The ds within	Date Received	02/12/2015	02/12/2015	02/12/2015	02/12/2015	
(F) Trigger breach confirmed	ie recovery	Lab Sample No.(s)	12556160	12556162	12556164	12556165	
Component	LOD/Units	Method					
Aliphatics >C12-C16	<100 µg/kg	TM173	<100	<100	<100	235	
Aliphatics >C16-C21	<100 µg/kg	TM173	<100	<100	<100	177	
Aliphatics >C21-C35	<100 µg/kg	TM173	4080	1290	<100	227	
Aliphatics >C35-C44	<100 µg/kg	TM173	485	<100	<100	<100	

Component

Aromatics >EC12-EC16

Lab Sample No.(s) AGS Reference

Method

TM173

LOD/Units

<100 µg/kg

12556160

<100

CERTIFICATE OF ANALYSIS

12556162

<100

12556164

<100

12556165

125

Aromatics >EC16-EC21	<100 µg/kg	TM173	478	254	294	829	
Aromatics >EC21-EC35	<100 µg/kg	TM173	6930	3710	3290	3260	
15:25:11 18/12/2015							

ALcontrol Labo	oratories		CERT	FICATE OF				Validated
SDG: 151 Job: H_L Client Reference: 463	202-56 JRS_WIM-282 370438	2	Location: Customer: Attention:	Shell Blackhorse AECOM Phil Allen		Order Number: Report Number: Superseded Rep	60479811 342760 port: 340898	
GRO by GC-FID (S)								
Results Legend # ISO17025 accredited. M mCERTS accredited. aq Aqueous / settled sample. diss.filt Dissolved / filtered sample. tot.unfilt Total / unfiltered sample. * Subcontracted test. ** % recovery of the surrogate check the efficiency of the uncompared	e standard to method. The	ustomer Sample Ref. Depth (m) Sample Type Date Sampled Sampled Time Date Received	MW201_0.65 0.65 Soil/Solid 01/12/2015 02/12/2015	SB201_0.5 0.50 Soil/Solid 01/12/2015 02/12/2015	SB202_0.8 0.80 Soii/Solid 01/12/2015 02/12/2015	SB203_1.1 1.10 Soil/Solid 01/12/2015 02/12/2015		
results of individual compo samples aren't corrected fo	unds within r the recovery	SDG Ref	151202-56	151202-56	151202-56	151202-56		
(F) Trigger breach confirmed 1-5&+§@ Sample deviation (see appe	endix)	Lab Sample No.(s) AGS Reference	12550100	12550102	12000104	12000100		
Component	LOD/Unit	s Method						
GRO Surrogate % recovery**	%	TM089	75	106	76	123		
Aliphatics >C5-C6	<10 µg/k	g TM089	<10	<10	<10	<10		
Aliphatics >C6-C8	<10 µg/k	g TM089	<10	<10	<10	<10		
Aliphatics >C8-C10	<10 µg/k	g TM089	<10	<10	<10	<10		
Aliphatics >C10-C12	<10 µg/k	g TM089	<10	<10	<10	<10		
Aromatics >EC5-EC7	<10 µg/k	g TM089	<10	<10	<10	<10		
Aromatics >EC7-EC8	<10 µg/k	g TM089	<10	<10	<10	<10		
Aromatics >EC8-EC10	<10 µg/k	g TM089	<10	<10	<10	<10		
Aromatics >EC10-EC12	<10 µg/k	g TM089	<10	<10	<10	<10		

CERTIFICATE OF ANALYSIS

SDG: 15120 Job: H_UR Client Reference: 46370	2-56 S_WIM-282 438		Location: Customer: Attention:	Shel AEC Phil	ll Blackhorse COM Allen				Order Num Report Nun Supersedeo	ber: hber: d Repo	60479811 342760 ort: 340898	
PAH by GCMS												
Results Legend # ISO17025 accredited. M mCERTS accredited.	Cust	tomer Sample Ref.	MW201_0.65		SB201_0.5		SB202_0.8		SB203_1.1			
aq Aqueous / settled sample. diss.filt Dissolved / filtered sample. tot.unfilt Total / unfiltered sample. * Subcontracted test. ** % recovery of the surrogate sta	andard to	Depth (m) Sample Type Date Sampled Sampled Time	0.65 Soil/Solid 01/12/2015		0.50 Soil/Solid 01/12/2015		0.80 Soil/Solid 01/12/2015		1.10 Soil/Solid 01/12/2015			
check the efficiency of the met results of individual compound samples aren't corrected for th (F) Trigger breach confirmed 1-5&+§@ Sample deviation (see appendi	hod. The ds within le recovery x)	Date Received SDG Ref Lab Sample No.(s) AGS Reference	02/12/2015 151202-56 12556160		02/12/2015 151202-56 12556162		02/12/2015 151202-56 12556164		02/12/2015 151202-56 12556165			
Component	LOD/Units	Method										
Naphthalene-d8 % recovery**	%	TM218	94.1		93.9		89.8		94			
Acenaphthene-d10 % recovery**	%	TM218	91		90.8		83.7		91.9			
Phenanthrene-d10 % recovery**	%	TM218	88.5		87.7		81.3		88.9			
Chrysene-d12 % recovery**	%	TM218	88.6		86.7		78.9		87.2			
Perylene-d12 % recovery**	%	TM218	89.6		86.4		78.1		86.6			
Naphthalene	<9 µg/kg	TM218	<9	м	<9	м	<9	м	<9	м		
Acenaphthylene	<12 µg/kg	TM218	18.2	м	<12	м	<12	м	<12	м		
Acenaphthene	<8 µg/kg	TM218	<8	M	<8	м	<8	M	<8	M		
Fluorene	<10 µg/kg	TM218	<10	M	<10		<10	IVI M	<10	M		
Phenanthrene	<15 µg/kg	TM218	35.8	M	48.3		61.4	IVI	22.2			
Anthracene	<16 µg/kg	TM218	<16	M	<16	M	<16	M	<16	M		
Fluoranthene	<17 µg/kg	TM218	60.5	M	90.8	M	105	M	49.9	M		
Pyrene	<15 µg/kg	TM218	55.3	M	77	M	88.2	M	42.2	M		
Benz(a)anthracene	<14 µg/kg	TM218	55.7	M	62.2		73.4	M	35.3	<u>IVI</u>		
Chrysene	<10 µg/kg	TM218	54.8	M	53.4	M	64.3	M	34.1	M		
Benzo(b)fluoranthene	<15 µg/kg	TM218	129	M	107	м	104	M	43	M		
Benzo(k)fluoranthene	<14 µg/kg	TM218	52.6	м	38.5	м	<14	M	<14	M		
Benzo(a)pyrene	<15 µg/kg	TM218	86.4	M	71.1	м	72.4	M	32.1	M		
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218	80.4	м	50.6	м	48.5	M	27	M		
Dibenzo(a,h)anthracene	<23 µg/kg	TM218	<23	м	<23	м	<23	M	<23	M		
Benzo(g,h,i)perylene	<24 µg/kg	TM218	95.4	м	61.8	м	63.1	м	36.5	M		
PAH, Total Detected USEPA 16	<118 µg/kg	TM218	724	- NI	661	IVI	680	.WI	322			
				\neg								
				+								
				\rightarrow								

ALcontrol Lab	oratories		CERT	IFICATE OF	ANALYSIS			Validated
SDG: 15 Job: H	51202-56 _URS_WIM-282		Location: Customer:	Shell Blackhorse AECOM Phil Allen		Order Number: Report Number: Superseded Report	60479811 342760	
	570450		Attention.			ouperseded hep	OIL 340030	
Results Legend # ISO17025 accredited. M mCERTS accredited	Cu	stomer Sample Ref.	MW201_0.65	SB201_0.5	SB202_0.8	SB203_1.1		
aq Aqueous / settled sample diss.filt Dissolved / filtered sample tot.unfilt Total / unfiltered sample. * Subcontracted test. ** % recovery of the surroug	e. ate standard to	Depth (m) Sample Type Date Sampled Sampled Time	0.65 Soil/Solid 01/12/2015	0.50 Soil/Solid 01/12/2015	0.80 Soil/Solid 01/12/2015	1.10 Soil/Solid 01/12/2015		
check the efficiency of th results of individual comp samples aren't corrected (F) Trigger breach confirmed (F) Sample deviation (see an	e method. The pounds within for the recovery	Date Received SDG Ref Lab Sample No.(s)	02/12/2015 151202-56 12556160	02/12/2015 151202-56 12556162	02/12/2015 151202-56 12556164	02/12/2015 151202-56 12556165		
Component	LOD/Units	Method						
Toluene-d8**	%	TM116	94.5	95.2	93.3	95.3		
Methyl Tertiary Butyl Ether	<10 µg/kg) TM116	<10	<10 M M	<10 M	<10 M		
Benzene	<9 µg/kg	TM116	<9	<9 M M	<9 M	<9 M		
Toluene	<7 µg/kg	TM116	<7	<7 M M	<7 M	<7 M		
Ethylbenzene	<4 µg/kg	TM116	<4	<4 M M	<4 M	<4 M		
p/m-Xylene	<10 µg/kg) TM116	<10	<10 # #	<10 #	<10 #		
o-Xylene	<10 µg/kg	1 TM116	<10	<10 M M	<10 M	<10 M		
Tert-amyl methyl ether	<10 µg/kg	1 TM116	<10	<10 # #	<10 #	<10 #		

Client Reference: 46370438

SDG:

Job:

151202-56 H_URS_WIM-282

CERTIFICATE OF ANALYSIS

Location: Shell Blackhorse Customer: AECOM Attention: Phil Allen
 Order Number:
 60479811

 Report Number:
 342760

 Superseded Report:
 340898

Asbestos Identification - Soil

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	MW201_0.65 0.65 SOLID 01/12/2015 00:00:00 02/12/2015 20:31:10 151202-56 12556160 TM048	04/12/15	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	SB201_0.5 0.50 SOLID 01/12/2015 00:00:00 02/12/2015 20:32:21 151202-56 12556162 TM048	04/12/15	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	SB202_0.8 0.80 SOLID 01/12/2015 00:00:00 02/12/2015 20:28:52 151202-56 12556164 TM048	04/12/15	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	SB203_1.1 1.10 SOLID 01/12/2015 00:00 02/12/2015 20:34:17 151202-56 12556165 TM048	04/12/15	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected



Client Reference: 46370438

151202-56 H_URS_WIM-282

SDG:

Job:

CERTIFICATE OF ANALYSIS

Location: Shell Blackhorse Customer: AECOM Attention: Phil Allen

Order Number: 60479811 Report Number: 342760 Superseded Report: 340898

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample ¹	Surrogate Corrected
ASB_PREP			Campio	
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material		
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material		
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)		
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS		
TM173	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GC-FID		
TM218	Microwave extraction – EPA method 3546	Microwave extraction - EPA method 3546		
TM288		Determination of Oxygenates in Soils by Headspace/GC-MS		

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

Client Reference: 46370438

SDG:

Job:

CERTIFICATE OF ANALYSIS 151202-56 H_URS_WIM-282

Location: Shell Blackhorse Customer: AECOM Attention: Phil Allen

60479811 Order Number: **Report Number:** 342760 Superseded Report: 340898

Validated

Test Completion Dates

Lab Sample No(s)	12556160	12556162	12556164	12556165
Customer Sample Ref.	MW201_0.65	SB201_0.5	SB202_0.8	SB203_1.1
AGS Ref.				
Depth	0.65	0.50	0.80	1.10
Туре	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples	04-Dec-2015	04-Dec-2015	04-Dec-2015	04-Dec-2015
EPH CWG (Aliphatic) GC (S)	04-Dec-2015	04-Dec-2015	04-Dec-2015	04-Dec-2015
EPH CWG (Aromatic) GC (S)	04-Dec-2015	04-Dec-2015	04-Dec-2015	04-Dec-2015
GRO by GC-FID (S)	03-Dec-2015	03-Dec-2015	03-Dec-2015	03-Dec-2015
Oxygenates (S)	03-Dec-2015	03-Dec-2015	03-Dec-2015	03-Dec-2015
PAH by GCMS	07-Dec-2015	07-Dec-2015	07-Dec-2015	07-Dec-2015
Sample description	02-Dec-2015	03-Dec-2015	02-Dec-2015	02-Dec-2015
VOC MS (S)	04-Dec-2015	04-Dec-2015	04-Dec-2015	04-Dec-2015

Client Reference: 46370438

SDG:

Job:

CERTIFICATE OF ANALYSIS

Location:Shell BlackhorseCustomer:AECOMAttention:Phil Allen

 Order Number:
 60479811

 Report Number:
 342760

 Superseded Report:
 340898

ASSOCIATED AQC DATA

EPH CWG (Aliphatic) GC (S)

Component	Method Code	QC 1279
Total Aliphatics >C12-C35	TM173	87.71 68.25 : 114.73

151202-56 H_URS_WIM-282

EPH CWG (Aromatic) GC (S)

Component	Method Code	QC 1279
Total Aromatics >EC12-EC35	TM173	88.67 60.67 : 124.27

GRO by GC-FID (S)

Component	Method Code	QC 1281
Benzene by GC (Moisture Corrected)	TM089	106.0 76.23 : 120.71
Ethylbenzene by GC (Moisture Corrected)	TM089	107.0 73.32 : 122.02
m & p Xylene by GC (Moisture Corrected)	TM089	106.75 72.90 : 122.64
MTBE GC-FID (Moisture Corrected)	TM089	99.0 72.17 : 124.81
o Xylene by GC (Moisture Corrected)	TM089	107.0 71.65 : 124.40
QC	TM089	94.12 74.05 : 133.87
Toluene by GC (Moisture Corrected)	TM089	105.5 74.60 : 120.38

Oxygenates (S)

Component	Method Code	QC 1200
Benzene raw	TM288	98.5
		77.75 : 124.62
Diisopropyl ether raw	TM288	90.25
		81.07 : 125.84
Ethanol raw	TM288	136.0
		12.71 : 182.13
Ethylbenzene raw	TM288	108.25
		86.91 : 124.43
o-Xylene raw	TM288	97.75
		82.52 : 115.85
p/m-Xylene raw	TM288	105.25
		82.74 : 124.08
tert Butanol raw	TM288	130.5
		27.29 : 165.57
tert-amyl methyl ether raw	TM288	91.5
		82.15 : 125.05

CERTIFICATE OF ANALYSIS

 SDG:
 151202-56
 Location:
 Shell Blackhorse
 Order Number:
 60479811

 Job:
 H_URS_WIM-282
 Customer:
 AECOM
 Report Number:
 342760

 Client Reference:
 46370438
 Attention:
 Phil Allen
 Superseded Report:
 340898

Oxygenates (S)

		QC 1200
tert-butyl ethyl ether raw	TM288	89.75 81.24 : 125.04
tert-butyl methyl ether raw	TM288	93.5 80.97 : 130.09
Toluene raw	TM288	94.5 78.97 : 116.51

PAH by GCMS

Component	Method Code	QC 1252
Acenaphthene	TM218	90.5 78.41 : 114.87
Acenaphthylene	TM218	82.5 72.38 : 111.60
Anthracene	TM218	84.5 72.78 : 117.53
Benz(a)anthracene	TM218	95.0 79.50 : 130.50
Benzo(a)pyrene	TM218	95.0 79.50 : 130.50
Benzo(b)fluoranthene	TM218	99.0 78.10 : 127.57
Benzo(ghi)perylene	TM218	96.0 81.67 : 122.61
Benzo(k)fluoranthene	TM218	97.5 81.20 : 118.10
Chrysene	TM218	91.0 80.60 : 117.80
Dibenzo(ah)anthracene	TM218	98.0 77.93 : 124.42
Fluoranthene	TM218	89.5 80.39 : 114.39
Fluorene	TM218	89.5 79.50 : 118.50
Indeno(123cd)pyrene	TM218	95.5 80.30 : 128.30
Naphthalene	TM218	93.5 82.25 : 118.25
Phenanthrene	TM218	90.0 71.53 : 114.48
Pyrene	TM218	88.0 79.12 : 114.39

VOC MS (S)

Component	Method Code	QC 1259
1,1,1,2-tetrachloroethane	TM116	101.4 76.60 : 121.00
1,1,1-Trichloroethane	TM116	101.2 77.80 : 123.40
1,1,2-Trichloroethane	TM116	96.6 75.40 : 119.80
1,1-Dichloroethane	TM116	103.2 80.84 : 124.49

 SDG:
 151202-56

 Job:
 H_URS_WIM-282

 Client Reference:
 46370438

VOC MS (S)

CERTIFICATE OF ANALYSIS

Location: Shell Blackhorse Customer: AECOM Attention: Phil Allen
 Order Number:
 60479811

 Report Number:
 342760

 Superseded Report:
 340898

		QC 1259
1,2-Dichloroethane	TM116	115.0 88.45 : 118.84
1,4-Dichlorobenzene	TM116	93.4 80.88 : 114.60
2-Chlorotoluene	TM116	90.0 74.00 · 117.20
4-Chlorotoluene	TM116	86.4
Benzene	TM116	100.8
Carbon Disulphide	TM116	101.2
Carbontetrachloride	TM116	110.4
Chlorobenzene	TM116	100.2
Chloroform	TM116	111.2
Chloromethane	TM116	114.8
Cis-1,2-Dichloroethene	TM116	68.36 : 154.01 116.2
Dibromomethane	TM116	81.20 : 128.00 98.8
Dichloromethane	TM116	73.40 : 116.60 120.4
Ethylbenzene	TM116	86.60 : 137.00 97.8
Hexachlorobutadiene	TM116	73.60 : 115.60 116.0
Isopropylbenzene	TM116	42.69 : 142.65 96 4
Naphthalene	TM116	72.52 : 117.52
o-Xvlene	TM116	83.23 : 126.48
	TM116	69.60 : 110.40
p/m-Xyiene	TMITO	93.0 71.30 : 112.70
Sec-Butylbenzene	IM116	107.6 59.20 : 125.20
Tetrachloroethene	TM116	112.6 85.92 : 127.92
Toluene	TM116	92.0 76.08 : 110.17
Trichloroethene	TM116	100.8 78.17 : 121.37
Trichlorofluoromethane	TM116	127.8 83.78 : 132.82
Vinyl Chloride	TM116	98.2 66.81 : 138.46



The above information details the reference name of the analytical quality control sample (AQC) that has been run with the samples contained in this report for the different methods of analysis.

The figure detailed is the percentage recovery result for the AQC.

The subscript numbers below are the percentage recovery lower control limit (LCL) and the upper control limit (UCL). The percentage recovery result for the AQC should be between these limits to be statistically in control.





















DG:	151202-56	Location:	Shell Blackhorse	Order Number:	60479811	
b: ient Reference:	H_URS_WIM-282 46370438	Customer Attention:	: AECOM Phil Allen	Report Number Superseded Re	: 342760 port: 340898	
		(Chromatogr	am		
alysis: GRO by	GC-FID (S)	Sample No Sample ID	D : 12560874 SB203 1 1	Depth : 1.10		
		12560874	1 GRO S DATA - HP685	50 Signal 1		
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151202-56

46370438

H URS WIM-282

CERTIFICATE OF ANALYSIS

Shell Blackhorse Location: Customer: AECOM Attention: Phil Allen

Appendix

Client Reference:

SDG

Job:

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

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

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

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

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

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

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

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

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

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

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

12. Results relate only to the items tested

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

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

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

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

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

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

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

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

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

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

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

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

Order Number: Report Number: Superseded Report: 340898

SOLID MATRICES EXTRACTION SUMMARY

ANA LYSIS	D/C OR WET	EXTRAC TION SO LVENT	EXTRACTION METH OD	ANALYSS
SOL VENTEXTRACTABLE MATTER	D&C	DCM	SO XTHERM	GRAVMETR IC
CYCLOHEXANE EXT. MATTER	D&C	CYCLO HEXANE	SO XTHERM	GRAVMETR IC
THN LAYER CHR OMATOG RAPHY	D&C	DCM	SO XTHERM	ATROSCAN
ELEMENTALSULPHUR	D&C	DCM	SO XTHERM	HPLC
PHENOL SBY G OMS	WET	DCM	SO XTHERM	GC-MS
HERBICDES	D&C	HEXANEACETONE	SO XTHERM	GC-MS
PESTICIDES	D&C	HEXANEACETONE	SO XTHERM	GC-MS
EPH (DR O)	D&C	H EXANE ACETONE	END OVEREND	GC-FD
EPH (MINOL)	D&C	H EXANE ACETONE	END OVEREND	GC-FD
EPH (CLEANED UP)	D&C	HEXANEACETONE	END OVEREND	GC-FD
EPH CWG BYG C	D&C	H EXANEACETONE	END OVEREND	GC-FD
PCB TOT / PCB CON	D&C	HEXANEACETONE	END OVEREND	GC-MS
POL YARO MATIC HYDRO CARBONS (MS)	WET	HEXANEACETONE	MCROWAVE TM218.	GC-MS
C8-C40(C6-C40)EZ FLASH	WET	HEXANEACETONE	SHAKER	GC-EZ
POL YARO MATIC HYDRO CARBONS RAPID G C	WET	HEXANEACETONE	SHAKER	GC-EZ
SEM VOLATILEO RGANIC	WET	DCMACETO NE	SONICATE	GCMS

LIQUID MATRICES EXTRACTION SUMMARY

ANA LYSIS	EXTRAC TION SOLVENT	EXTRACTION METHOD	ANALYSIS
PAHMS	HEXANE	STIRREDEXTRACTION(STIR -BAR)	GCMS
EPH	HEXANE	STIRREDEXTRACTION(STIR -BAR)	GC FD
EPH CWG	HEXANE	STIRREDEXTRACTION(STIR -BAR)	GC FD
MN ER AL OIL	HEXANE	STIRREDEXTRACTION(STIR -BAR)	GC FD
PCB 7CONGENERS	HEXANE	STIRREDEXTRACTION(STIR -BAR)	GCMS
PCB TOTAL	HEXANE	STIRREDEXTRACTION(STIR -BAR)	GCMS
SVOC	DCM	LIQUID/LIQUD SHAKE	GCMS
FREESULPHUR	DCM	SOL D PHASE EXTRACTION	HPLC
PESTOCP/OPP	DCM	LIQUID/LIQUD SHAKE	GCMS
TRIAZINE HERBS	DCM	LIQUID/LIQUD SHAKE	GCMS
PHENOL SMS	DCM	SOL D PHASE EXTRACTION	GCMS
TPH by INFRARED (R)	TCE	LIQUID/LIQUD SHAKE	HPLC
MN ER AL OIL by R	TCE	LIQUID/LIQUD SHAKE	HPLC
GLYCOLS	NONE	DIRECTINJECTION	GCMS

Identification of Asbestos in Bulk Materials

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

Visual Estimation Of Fibre Content

Asbestos Type	Common Name
Chrysof le	White Asbestos
Amosite	BrownAsbestos
Cio d dolite	Blue Asbe stos
Fibrous Actinolite	-
Fib io us Anthop hyll ite	-
Fibrous Tremolite	-

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

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

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

Validated

60479811 342760

Shell Blackhorse

Location:

Customer: AECOM

Attention: Phil Allen

 SDG:
 151202-56

 Job:
 H_URS_WIM-282

 Client Reference:
 46370438

Appendix General

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

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

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

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

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

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

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

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

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

11. Results relate only to the items tested.

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

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

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

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

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

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

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

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

Superseded Report: 340898

Order Number:

Report Number:

60479811

342760

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

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

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

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

Sample Deviations

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

Asbestos

Identification of Asbestos in Bulk Materials & Soils

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

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

Asbe stos Type	Common Name
Chrysofle	White Asbestos
Amosite	BrownAsbestos
Cro o dolite	Blue Asbe stos
Fibrous Act nolite	-
Fib to us Anthop hyll ite	-
Fibrous Tremol ite	-

Visual Estimation Of Fibre Content

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

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

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



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

Attention: Phil Allen

CERTIFICATE OF ANALYSIS

Date: Customer: Sample Delivery Group (SDG): Your Reference: Location: Report No: 18 December 2015 H_URS_WIM 151203-38 46370438 Shell Blackhorse 342759

This report has been revised and directly supersedes 341318 in its entirety.

We received 4 samples on Thursday December 03, 2015 and 4 of these samples were scheduled for analysis which was completed on Wednesday December 09, 2015. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

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

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

Approved By:

Sonia McWhan Operations Manager





Validated

 SDG:
 151203-38
 Location:
 Shell Blackhorse
 Order Number:
 60479811

 Job:
 H_URS_WIM-282
 Customer:
 AECOM
 Report Number:
 342759

 Client Reference:
 46370438
 Attention:
 Phil Allen
 Superseded Report:
 341318

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
12562507	SB204		1.10	02/12/2015
12562508	SB204		2.00	02/12/2015
12562509	SB205		0.70	01/12/2015
12562506	VP201		0.50	01/12/2015

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

ALcontrol Laboratories CERTIFICATE OF ANALYSIS							Validated	
SDG: 151203-38 Job: H_URS_W Client Reference: 46370438	151203-38 Locatio H_URS_WIM-282 Custom rence: 46370438 Attentic				ckhorse	;	Order Number: 60479811 Report Number: 342759 Superseded Report: 341318	
SOLID			_	_				
Results Legend	Lab Sample	No(s)	2562	2562	2562	2562		
X Test			2507	2508	2509	2506		
No Determination Possible	Customer Sample Reference		SB204	SB204	SB205	VP201		
	AGS Refere	nce						
	Depth (m	1)	1.10	2.00	0.70	0.50		
	Container		60g VOC (ALE215) 250g Amber Jar 1kg TUB	60g VOC (ALE215) 250g Amber Jar	60g VOC (ALE215) 250g Amber Jar 1ka TUB	60g VOC (ALE215) 250g Amber Jar 1ka TUB		
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 3	<mark>x</mark>		x	<mark>x</mark>		
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 4	x	X	x	X		
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 4	x	x	X	X		
GRO by GC-FID (S)	All	NDPs: 0 Tests: 4	x	x	X	X		
Oxygenates (S)	All	NDPs: 0 Tests: 4	X	x	X	X		
PAH by GCMS	All	NDPs: 0 Tests: 4	x.	x	X	X		
Sample description	All	NDPs: 0 Tests: 3	<mark>x</mark>		X	X		
Total Organic Carbon	All	NDPs: 0 Tests: 1		x				
VOC MS (S)	All	NDPs: 0 Tests: 4	×	x	x	x		

151203-38

46370438

H_URS_WIM-282

CERTIFICATE OF ANALYSIS

Sample Descriptions

Location: Shell Blackhorse Customer: AECOM Attention: Phil Allen

Grain Sizes

Client Reference:

SDG:

Job:

very fine <0.0	063mm fine 0.06	3mm - 0.1mm me	edium 0.1mm	i - 2mm coai	rse 2mm - 1	0mm very coa	arse >10mm	
Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Grain size	Inclusions	Inclusions 2	
12562507	SB204	1.10	Light Brown	Sand	0.1 - 2 mm	Stones	None	
12562508	SB204	2.00	Light Brown	Sand	0.1 - 2 mm	Stones	None	
12562509	SB205	0.70	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Vegetation	
12562506	VP201	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Crushed Brick	Stones	

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 ocurring 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.

CERTIFICATE OF ANALYSIS

And Series Construction Construction Series Construction Series Construct	Results Legend		Customer Sample Ref.	SB204	SB204	SB205	VP201	
Barry Horizon H	M mCERTS accredited.							
Martine strate And Martine strate And Martine strate And Martine strate Note of the base strate of the base str	aq Aqueous / settled sample. diss.filt Dissolved / filtered sample.		Depth (m)	1.10	2.00	0.70	0.50	
Benefity of the increase with a set of the increase witherease with a set of the increase with a set of th	tot.unfilt Total / unfiltered sample.		Sample Type Date Sampled	Soil/Solid 02/12/2015	Soil/Solid 02/12/2015	Soil/Solid 01/12/2015	Soil/Solid 01/12/2015	
	** % recovery of the surrogate sta	andard to	Sampled Time					
Bis and the set of th	check the efficiency of the met results of individual compound	hod. The Is within	Date Received	03/12/2015	03/12/2015	03/12/2015	03/12/2015	
side control control <thcontrol< th=""> <thcd>control <thc< td=""><td>samples aren't corrected for th (E) Trigger breach confirmed</td><td>e recovery</td><td>SDG Ret Lab Sample No.(s)</td><td>12562507</td><td>12562508</td><td>12562509</td><td>12562506</td><td></td></thc<></thcd></thcontrol<>	samples aren't corrected for th (E) Trigger breach confirmed	e recovery	SDG Ret Lab Sample No.(s)	12562507	12562508	12562509	12562506	
Component Lobulture Material (% of %) PMIA4 1.6 5.1 3.1 1.11 Image: Marcine Material (% of %) extention Space (% of %) PMIA4 1.6 5.1 3.1 1.12 Image: Marcine Material (% of %) Image: Marcine Material	1-5&+§@ Sample deviation (see appendi	x)	AGS Reference					
Network PNG20 TM32 Solution Sol	Component	LOD/Uni	its Method					
Indicidency interfacts Indicidency interfacts <thindicidencots< th=""> <thindicidency interfacts<="" th=""></thindicidency></thindicidencots<>	Moisture Content Ratio (% of as	%	PM024	1.6	5.1	3.1	17	
Findic Organic Carbon Low 40,0002- TM 32 0.00989 a a ethom etho	received sample)							
Bhand 450 µdya TM288 450 450 450 450 450 tet Bunnd <0 µdya	Fraction Organic Carbon Low	<0.0002	2 - TM132		0.000959			
Chanton < Nu pypp Nicks < Nu Nu Nu Nu		.50 //	T. 1000	.50	#		.50	
tert Bahrat<10 µpkgTM288<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10<10 <th< td=""><td>Ethanol</td><td><50 µg/</td><td>kg i M288</td><td><50</td><td><50</td><td><50</td><td><50</td><td></td></th<>	Ethanol	<50 µg/	kg i M288	<50	<50	<50	<50	
MindpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumpukNumu	tort Putopol	<10 ug/		<10	<10	<10	<10	
Disoproysi ether<1 µµŷqTM288<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11<11		<10 µg/	Ng TIVI200	10	10	10	10	
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Introduct<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1 <th< td=""><td></td><td></td><td>.9</td><td></td><td>·</td><td></td><td></td><td></td></th<>			.9		·			
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CERTIFICATE OF ANALYSIS

SDG:	151203-38	Location:	Shell Blackhorse	Order Number:	60479811
Job:	H_URS_WIM-282	Customer:	AECOM	Report Number:	342759
Client Reference:	46370438	Attention:	Phil Allen	Superseded Report:	: 341318
EPH CWG (Aliph	atic) GC (S)			_	

	Results Legend		Custo	mer Sample Ref.	SB204	SB204	SB205	VP201	
# IS M m	O17025 accredited. CERTS accredited.								
aq Ao diss.filt Di	queous / settled sample. issolved / filtered sample.			Depth (m)	1.10	2.00	0.70	0.50	
tot.unfilt To * Sເ	otal / unfiltered sample.			Sample Type Date Sampled	Soil/Solid 02/12/2015	Soil/Solid 02/12/2015	Soil/Solid 01/12/2015	Soil/Solid 01/12/2015	
** %	recovery of the surrogate sta	andard to		Sampled Time					
re	sults of individual compound	ls within		Date Received SDG Ref	03/12/2015 151203-38	03/12/2015 151203-38	03/12/2015 151203-38	03/12/2015 151203-38	
(F) Tr	igger breach confirmed	e recovery	La	ab Sample No.(s)	12562507	12562508	12562509	12562506	
1-5&+§@ Sa	ample deviation (see appendi	x)	nite	AGS Reference					
	>C12-C16	<100	a/ka	TM173	<100	13800	<100	<100	
Лірнацьз	2012-010	<100 µ	y/ry	1101175	100	15000	100	100	
Aliphatics	>C16-C21	<100 µ	g/kg	TM173	<100	1690	<100	<100	
Aliphatics	s >C21-C35	<100 µ	g/kg	TM173	<100	<100	4510	2120	
					100		100		
Aliphatics	s >C35-C44	<100 µ	g/kg	TM173	<100	<100	<100	<100	
			T						
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results of individual compound samples aren't corrected for the	ds within he recovery	Date Received SDG Ref	03/12/2015 151203-38	03/12/2015 151203-38	03/12/2015 151203-38	03/12/2015 151203-38	
(F) Trigger breach confirmed 1-5&+&@ Sample deviation (see append	ix)	Lab Sample No.(s)	12562507	12562508	12562509	12562506	
Component	LOD/Units	Method					
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100	45200	<100	<100	
Aromatics >EC16-EC21	<100 µg/kg	TM173	<100	9680	<100	2500	
Aromatics >EC21-EC35	<100 µg/kg	TM173	<100	4600	2920	11400	

CERTIFICATE OF ANALYSIS

Results Legend	C	ustomer Sample Ref.	SB204	SB204	SB205	VP201	
# ISO17025 accredited. M mCERTS accredited. aq Aqueous / settled sample. diss.filt Dissolved / filtered sample. tot.unfilt Total / unfiltered sample.		Depth (m) Sample Type	1.10 Soil/Solid	2.00 Soil/Solid	0.70 Soil/Solid	0.50 Soil/Solid	
* Subcontracted test. ** % recovery of the surrogate sta	andard to	Date Sampled Sampled Time	02/12/2015	02/12/2015	01/12/2015	01/12/2015	
check the efficiency of the met results of individual compound samples aron't corrected for th	hod. The Is within	Date Received SDG Ref	03/12/2015 151203-38	03/12/2015 151203-38	03/12/2015 151203-38	03/12/2015 151203-38	
 (F) Trigger breach confirmed 1-5&+§@ Sample deviation (see appendi 	ix)	Lab Sample No.(s)	12562507	12562508	12562509	12562506	
Component	, LOD/Unit	ts Method					
GRO Surrogate % recovery**	%	TM089	81	123	113	72	
Aliphatics >C5-C6	<10 µg/k	g TM089	<10	<200	<10	<10	
Aliphatics >C6-C8	<10 µg/k	g TM089	<10	41400 3	<10	<10	
Aliphatics >C8-C10	<10 µg/k	g TM089	<10	1140000 3	<10	<10	
Aliphatics >C10-C12	<10 µg/k	tg TM089	<10	934000 3	<10	<10	
Aromatics >EC5-EC7	<10 µg/k	g TM089	<10	<200 3	<10	<10	
Aromatics >EC7-EC8	<10 µg/k	g TM089	<10	2840 3	<10	<10	
Aromatics >EC8-EC10	<10 µg/k	g TM089	<10	1210000 3	<10	<10	
Aromatics >EC10-EC12	<10 µg/k	g TM089	<10	623000 3	<10	<10	

CERTIFICATE OF ANALYSIS

# ISO17025 accredited.		Customer Sample Rei.	SB204	SB204	SB205	VP201	
aq Aqueous / settled sample.		Depth (m)	1 10	2.00	0.70	0.50	
tot.unfilt Total / unfiltered sample.		Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	
** % recovery of the surrogate st	andard to	Sampled Time	02/12/2015	02/12/2015	01/12/2015	01/12/2015	
results of individual compound samples aren't corrected for the	ds within	Date Received SDG Ref	03/12/2015 151203-38	03/12/2015 151203-38	03/12/2015 151203-38	03/12/2015 151203-38	
(F) Trigger breach confirmed 1-5&+\$@ Sample deviation (see append	ix)	Lab Sample No.(s)	12562507	12562508	12562509	12562506	
Component	LOD/Un	its Method					
Naphthalene-d8 % recovery**	%	TM218	96.5	98.2	90.5	99.3	
Acenaphthene-d10 %	%	TM218	94.2	97.3	90.2	99.1	
Phenanthrene-d10 % recovery**	%	TM218	93.6	97.2	88.5	96.4	
Chrysene-d12 % recovery**	%	TM218	91.9	99.2	77	95.9	
Perylene-d12 % recovery**	%	TM218	91.9	102	76.4	99	
Naphthalene	<9 µg/l	kg TM218	<9 M	1260 M	<9 M	24.3	
Acenaphthylene	<12 µg/	/kg TM218	<12 M	<12 M	<12 M	74.4	
Acenaphthene	<8 µg/l	kg TM218	м <8 м	бб.5 М	<8 M	ти 10.2 м	
Fluorene	<10 µg/	/kg TM218	<10 M	м 824 м	<10 M	<10 M	
Phenanthrene	<15 µg/	/kg TM218	<15 M	982 M	20.3 M	249 M	
Anthracene	<16 µg/	/kg TM218	<16 M	157 M	<16 M	119 M	
Fluoranthene	<17 µg/	/kg TM218	<17 M	83.7 M	31.2 M	875 M	
Pyrene	<15 µg/	/kg TM218	<15 M	165 M	25.2 M	909 M	
Benz(a)anthracene	<14 µg/	/kg TM218	<14 M	22.1 M	<14 M	487 M	
Chrysene	<10 µg/	/kg TM218	<10 M	<10 M	14 M	511 M	
Benzo(b)fluoranthene	<15 µg/	/kg TM218	<15 M	18.8 M	26.2 M	692 M	
Benzo(k)fluoranthene	<14 µg/	/kg TM218	<14 M	<14 M	<14 M	243 M	
Benzo(a)pyrene	<15 µg/	/kg TM218	<15 M	16.3 M	23.3 M	476 M	
Indeno(1,2,3-cd)pyrene	<18 µg/	/kg TM218	<18 M	<18 M	<18 M	286 M	
Dibenzo(a,h)anthracene	<23 µg/	/kg TM218	<23 M	<23 M	<23 M	88.7 M	
Benzo(g,h,i)perylene	<24 µg/	/kg TM218	<24 M	<24 M	<24 M	382 M	
PAH, Total Detected USEPA 16	<118 µg	J/kg TM218	<118	3600	140	5430	
		_					

	ALcontrol L	abora	atories	6		CEDI			E ^		•					Validated
SDG Job: Clier	: nt Reference:	15120 H_UR 46370	3-38 S_WIM-2 438	82		Location: Customer: Attention:	Sh AE Ph	ell Blackhorse COM		INAL 1 513)	Order Numb Report Num Superseded	ber: Iber:	60479811 342759 ort: 341318		
voc	MS (S)															
# M aq diss.filt tot.unfilt	Results Legen ISO17025 accredited. mCERTS accredited. Aqueous / settled sam Dissolved / filtered sam Total / unfiltered sam Subcostrated tot	nd nple. imple. ple.		Custo	omer Sample Ref. Depth (m) Sample Type	SB204 1.10 Soil/Solid		SB204 2.00 Soil/Solid 09/12/2015		SB205 0.70 Soil/Solid		VP201 0.50 Soil/Solid				
** (F) 1-5&+§@	% recovery of the sur- check the efficiency or results of individual c samples aren't correc Trigger breach confirr Sample deviation (see	rogate st of the met compound ted for th med e appendi	andard to hod. The ds within le recovery ix)	Li	Sampled Time Date Received SDG Ref ab Sample No.(s) AGS Reference	03/12/2015 151203-38 12562507		03/12/2015 151203-38 12562508		03/12/2015 151203-38 12562509		03/12/2015 151203-38 12562506				
Compo	onent		LOD/U	nits	Method TM116	05.7		00 E		07.2	_	01.6	_		_	
Toluene	9-00		70			95.7		00.0		91.2		91.0				
Methyl	Tertiary Butyl Ethe	er	<10 µç	g/kg	TM116	<10	М	<10	М	<10	М	<10	м			
Benzer	le		<9 µg	/kg	TM116	<9	м	<9	м	<9	м	<9	м			
Toluen	9		<7 µg	/kg	TM116	<7	M	2140	M	<7	M	<7	M			
Ethylbe	nzene		<4 µg	/kg	TM116	<4	M	6360	м	<4	м	<4	M			
p/m-Xy	lene		<10 µç	g/kg	TM116	<10	#	149000	#	<10	#	<10	#			
o-Xyler	le		<10 µç	g/kg	TM116	<10	<u>"</u> М	76800		<10	" M	<10	м			
Tert-an	nyl methyl ether		<10 µç	g/kg	TM116	<10	#	<10	#	<10	#	<10	#			

Client Reference: 46370438

SDG:

Job:

151203-38 H_URS_WIM-282

CERTIFICATE OF ANALYSIS

Location:Shell BlackhorseCustomer:AECOMAttention:Phil Allen

 Order Number:
 60479811

 Report Number:
 342759

 Superseded Report:
 341318

Asbestos Identification - Soil

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	SB204 1.10 SOLID 02/12/2015 00:00:00 03/12/2015 13:25:39 151203-38 12562507 TM048	07/12/2015	Rebecca Rawlings	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	SB205 0.70 SOLID 01/12/2015 00:00:00 03/12/2015 14:17:10 151203-38 12562509 TM048	07/12/2015	Rebecca Rawlings	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	VP201 0.50 SOLID 01/12/2015 00:00:00 03/12/2015 14:15:03 151203-38 12562506 TM048	07/12/2015	Rebecca Rawlings	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected



CERTIFICATE OF ANALYSIS

 SDG:
 151203-38

 Job:
 H_URS_WIM-282

 Client Reference:
 46370438

CERTIFICATE OF ANALYSIS

Location:Shell BlackhorseCustomer:AECOMAttention:Phil Allen

Order Number: 60479811 Report Number: 342759 Superseded Report: 341318

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample ¹	Surrogate Corrected
ASB_PREP				
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material		
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material		
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)		
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS		
TM132	In - house Method	ELTRA CS800 Operators Guide		
TM173	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GC-FID		
TM218	Microwave extraction – EPA method 3546	Microwave extraction - EPA method 3546		
TM288		Determination of Oxygenates in Soils by Headspace/GC-MS		

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

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Test Completion Dates

Lab Sample No(s)	12562507	12562508	12562509	12562506
Customer Sample Ref.	SB204	SB204	SB205	VP201
AGS Ref.				
Depth	1.10	2.00	0.70	0.50
Туре	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples	07-Dec-2015		07-Dec-2015	07-Dec-2015
EPH CWG (Aliphatic) GC (S)	07-Dec-2015	08-Dec-2015	07-Dec-2015	07-Dec-2015
EPH CWG (Aromatic) GC (S)	07-Dec-2015	08-Dec-2015	07-Dec-2015	07-Dec-2015
GRO by GC-FID (S)	04-Dec-2015	09-Dec-2015	09-Dec-2015	04-Dec-2015
Oxygenates (S)	08-Dec-2015	08-Dec-2015	08-Dec-2015	08-Dec-2015
PAH by GCMS	08-Dec-2015	08-Dec-2015	09-Dec-2015	08-Dec-2015
Sample description	03-Dec-2015	03-Dec-2015	03-Dec-2015	03-Dec-2015
Total Organic Carbon		07-Dec-2015		
VOC MS (S)	07-Dec-2015	08-Dec-2015	07-Dec-2015	07-Dec-2015

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ASSOCIATED AQC DATA

EPH CWG (Aliphatic) GC (S)

Component	Method Code	QC 1220	QC 1209	QC 1211
Total Aliphatics >C12-C35	TM173	82.92 69.19 : 111.75	81.88 70.80 : 111.51	82.92 71.67 : 116.67

EPH CWG (Aromatic) GC (S)

Component	Method Code	QC 1220	QC 1209	QC 1211
Total Aromatics >EC12-EC35	TM173	73.33 65.81 : 108.48	79.33 65.21 : 121.32	84.67 59.92 : 107.95

GRO by GC-FID (S)

Component	Method Code	QC 1283	QC 1263
Benzene by GC (Moisture	TM089	105.5	100.5
Corrected)		76.23 : 120.71	79.00 : 121.00
Ethylbenzene by GC (Moisture	TM089	105.5	103.0
Corrected)		73.32 : 122.02	79.00 : 121.00
m & p Xylene by GC (Moisture	TM089	105.0	103.0
Corrected)		72.90 : 122.64	79.00 : 121.00
MTBE GC-FID (Moisture	TM089	100.0	98.0
Corrected)		72.17 : 124.81	74.48 : 125.29
o Xylene by GC (Moisture	TM089	104.5	103.5
Corrected)		71.65 : 124.40	79.00 : 121.00
QC	TM089	78.94 74.05 : 133.87	98.34 73.70 : 123.60
Toluene by GC (Moisture	TM089	105.5	101.5
Corrected)		74.60 : 120.38	79.00 : 121.00

Oxygenates (S)

Component	Method Code	QC 1276		
Benzene raw	TM288	95.25		
		77.75 : 124.62		
Diisopropyl ether raw	TM288	114.25		
		81.07 : 125.84		
Ethanol raw	TM288	61.7		
		12.71 : 182.13		
Ethylbenzene raw	TM288	117.0		
		86.91 : 124.43		
o-Xylene raw	TM288	108.5		
		82.52 : 115.85		
p/m-Xylene raw	TM288	116.38		
		82.74 : 124.08		
tert Butanol raw	TM288	82.5		
		27.29 : 165.57		
tert-amyl methyl ether raw	TM288	107.25		
		82.15 : 125.05		

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Oxygenates (S)

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		QC 1276
tert-butyl ethyl ether raw	TM288	111.0 81.24 : 125.04
tert-butyl methyl ether raw	TM288	110.75 80.97 : 130.09
Toluene raw	TM288	92.5 78.97 : 116.51

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PAH by GCMS

Component	Method Code	QC 1257	QC 1213	QC 1292
Acenaphthene	TM218	95.0 77.34 : 118.20	97.0 68.50 : 116.50	90.0 76.50 : 121.50
Acenaphthylene	TM218	88.0 62.65 : 116.35	89.5 65.00 : 110.00	82.0 73.50 : 118.50
Anthracene	TM218	91.5 73.54 : 114.21	91.5 75.14 : 109.30	90.5 74.25 : 117.75
Benz(a)anthracene	TM218	102.0 74.99 : 132.24	106.5 70.00 : 115.00	89.0 82.07 : 118.33
Benzo(a)pyrene	TM218	105.5 80.75 : 127.25	110.5 82.80 : 121.21	92.5 79.75 : 116.97
Benzo(b)fluoranthene	TM218	107.5 75.84 : 127.12	107.0 81.11 : 119.79	89.0 82.41 : 117.15
Benzo(ghi)perylene	TM218	104.0 74.74 : 124.03	105.0 81.23 : 116.67	86.5 77.09 : 114.38
Benzo(k)fluoranthene	TM218	106.0 80.00 : 125.00	103.0 79.07 : 114.76	93.5 81.43 : 115.17
Chrysene	TM218	101.5 77.24 : 120.84	102.0 77.94 : 118.46	86.5 82.50 : 113.51
Dibenzo(ah)anthracene	TM218	108.0 76.00 : 122.50	103.0 79.94 : 120.03	85.0 81.00 : 120.00
Fluoranthene	TM218	96.0 78.51 : 118.75	95.5 77.89 : 110.15	91.0 78.67 : 117.61
Fluorene	TM218	95.0 76.95 : 117.18	96.5 80.93 : 113.54	92.0 76.50 : 121.50
Indeno(123cd)pyrene	TM218	103.5 75.34 : 127.46	103.0 80.37 : 120.17	83.5 79.19 : 117.60
Naphthalene	TM218	95.0 76.24 : 112.91	98.0 79.70 : 112.37	91.0 77.00 : 117.50
Phenanthrene	TM218	96.5 76.49 : 119.30	97.0 78.44 : 113.95	92.5 75.00 : 123.00
Pyrene	TM218	94.5 78.25 : 118.17	95.0 66.00 : 114.00	91.0 77.82 : 116.98

Total Organic Carbon

Component	Method Code	QC 1222
Total Organic Carbon	TM132	104.11 88.82 : 111.18

VOC MS (S)

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VOC MS (S)

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Component	Method Code	QC 1284	QC 1243
1,1,1,2-tetrachloroethane	TM116	99.8 76.60 : 121.00	95.8 83.24 : 124.28
1,1,1-Trichloroethane	TM116	95.4 77.80 : 123.40	94.6 81.77 : 121.07
1,1,2-Trichloroethane	TM116	88.2 75.40 : 119.80	89.0 78.55 : 105.28
1,1-Dichloroethane	TM116	97.6 80.84 : 124.49	93.0 74.63 : 123.32
1,2-Dichloroethane	TM116	106.4 88.45 : 118.84	104.4 77.50 : 122.50
1,4-Dichlorobenzene	TM116	108.4 80.88 : 114.60	98.2 73.23 : 116.39
2-Chlorotoluene	TM116	91.2 74.00 : 117.20	95.6 69.22 : 110.64
4-Chlorotoluene	TM116	86.4 71.20 : 113.20	95.6 68.57 : 106.26
Benzene	TM116	95.8 79.60 : 125.20	96.4 84.33 : 124.27
Carbon Disulphide	TM116	93.6 74.91 : 122.14	91.6 77.20 : 122.80
Carbontetrachloride	TM116	102.6 87.07 : 120.37	107.0 84.20 : 119.90
Chlorobenzene	TM116	99.6 83.47 : 116.82	99.4 85.28 : 129.96
Chloroform	TM116	104.8 82.00 : 128.80	94.0 82.73 : 119.72
Chloromethane	TM116	102.0 68.36 : 154.01	111.6 55.16 : 145.46
Cis-1,2-Dichloroethene	TM116	110.8 81.20 : 128.00	93.6 80.55 : 123.13
Dibromomethane	TM116	93.8 73.40 : 116.60	101.0 73.40 : 116.60
Dichloromethane	TM116	115.4 86.60 : 137.00	98.6 81.68 : 125.21
Ethylbenzene	TM116	92.8 73.60 : 115.60	97.2 80.07 : 125.98
Hexachlorobutadiene	TM116	106.2 42.69 : 142.65	116.4 30.92 : 132.28
Isopropylbenzene	TM116	85.8 72.52 : 117.52	94.8 69.27 : 125.32
Naphthalene	TM116	102.6 83.23 : 126.48	111.4 79.15 : 121.98
o-Xylene	TM116	82.6 69.60 : 110.40	86.6 72.94 : 106.80
p/m-Xylene	TM116	87.7 71.30 : 112.70	94.9 76.97 : 121.75
Sec-Butylbenzene	TM116	86.2 59.20 : 125.20	107.4 49.27 : 129.90
Tetrachloroethene	TM116	107.8 85.92 : 127.92	110.0 87.96 : 133.65
Toluene	TM116	85.4 76.08 : 110.17	94.2 79.23 : 114.58

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Validated

		QC 1284	QC 1243
Trichloroethene	TM116	93.2 78.17 : 121.37	92.2 84.09 : 114.24
Trichlorofluoromethane	TM116	116.6 83.78 : 132.82	100.8 76.22 : 114.82
Vinyl Chloride	TM116	89.6 66.81 : 138.46	84.0 59.68 : 118.68

The above information details the reference name of the analytical quality control sample (AQC) that has been run with the samples contained in this report for the different methods of analysis.

The figure detailed is the percentage recovery result for the AQC.

The subscript numbers below are the percentage recovery lower control limit (LCL) and the upper control limit (UCL). The percentage recovery result for the AQC should be between these limits to be statistically in control.























