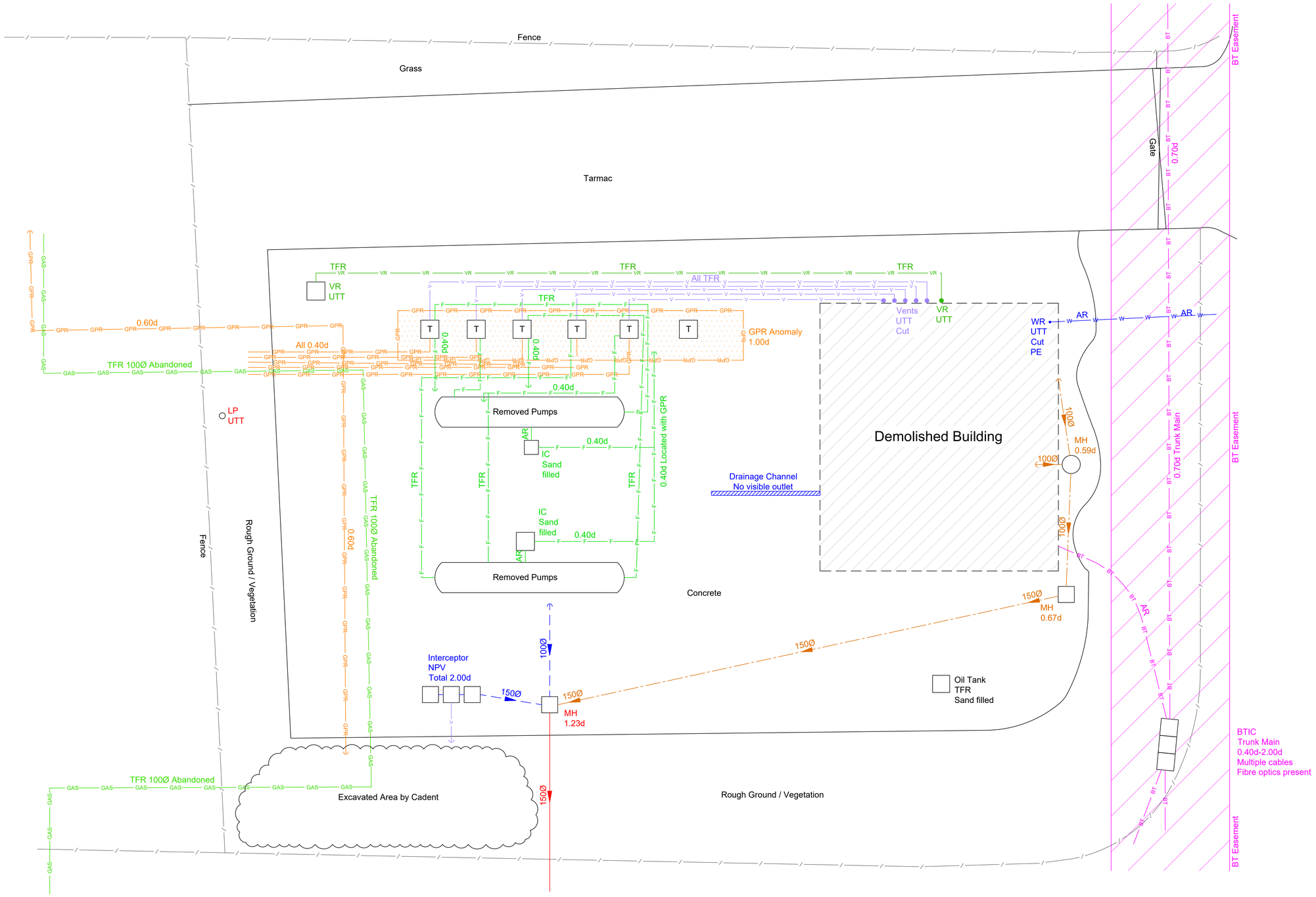
# Appendix A – Figures

Not to Scale Reference Only




## GENERAL NOTES:

Not to scale, reference only.

Demolished petrol filling station.

All tanks are sand/foam filled, unable to survey.

Partial signals on fuel lines, vent lines & offset fills. Some taken from records only.

No canopy.

Rough demolished terrain proving difficult for ground penetrating radar in places.

SHEET LAYOUT

KEY

COMPRESSED AIR
SURVEY BOUNDARY
CABLE TELEVISION
COMMUNICATIONS CABLE
COMBINED DRAINAGE
DUCTING
EARTH CABLE
ELECTRIC CABLE
FUEL PIPE
FOUL DRAINAGE
GAS PIPE
GAUGE LINE
HEATING PIPE
OFFSET FILL PIPE
PUMPING MAIN
RADAR ANOMALY AREA
RADAR TRACE
SURFACE DRAINAGE
TELECOMS CABLE
TRAFFIC LIGHT CABLE
UNIDENTIFIED
VAPOUR RECOVERY
VENT PIPE
WATER PIPE
END OF TRACE
SURVEY CONTROL STATION
0.5 BENCH MARK

A single line indicating a utility may indicate the presence of multiple services within close proximity to each other. Where a single line type is shown we recommend hand digging within 0.50m to expose hidden services.

ABBREVIATIONS

| | | | |
|---|---|---|---|
| AIR | ASSUMED ROUTE | EL | ELECTRICITY POLE |
| AV | AIR VALVE | ES | EARTH SIDE |
| BH | BOREHOLE/MEASON | ESP | ELECTRICITY SUPPLY POINT |
| BO | BACKDRAIN | FH | ELECTRICAL SWITCH |
| BR | BED LEVEL | FW | FIRE HYDRANT |
| BW | BOUNDARY WALL | GP | GAS GOVERNOR POLE |
| BWA | BUILDING WITH CELLARS | GV | GAS VALVE |
| CH | CHAMBER/MANHOLE | HP | HAND POST |
| DL | DRAINPIPE LIGHT | LP | LAMP POST |
| DP | DRAINPIPE | MP | MARKER POST |
| EP | EMERGENCY POST | MR | MAST RADIATING RADAR |
| ES | GAS VALVE | OP | OPEN |
| EVC | ELECTRICITY VALVE CHAMBER | OV | ORD. SURVEY PIN |
| EVP | ELECTRICITY VALVE POINT | PC | PROTECTION CHAMBER |
| FB | CONTROL BOX | R | MARKET LEVEL |
| FC | FIRE CHAMBER | RP | RODDING POINT |
| FH | CHAMBER | SP | SUMP |
| FL | COVER LEVEL | TP | TELEGRAPH POLE |
| GL | GULLY | TR | TRIAL PIT |
| GP | LAMP POST | UP | UNABLE TO PUMP |
| LP | CAMERA POST | UTCH | UNABLE TO GAIN ACCESS |
| LSP | LIGHT POST | UTL | UNABLE TO LIFT |
| LTP | LIGHTING POST | UTR | UNABLE TO READ |
| MH | MANHOLE | UTT | UNABLE TO TRACE |
| PL | DEPTH | VC | VITRIFIED CLAY |
| PO | POST | WC | WATER COURSE |
| SP | STEAM PIPE | WP | SUPPLY WATER POST |
| TC | TELEPHONE BOX | WV | WATER VALVE |
| TP | EXISTING INSPECTION COVER | WW | WHEEL TO WHEEL |
| TW | TELEGRAPH WIRE | XP | X POINT |
| END | END OF RECORDS | WR | WATER METER |
| EOT | END OF TRACE | WT | WATER TROUGH |
| | | WV | WATER VALVE |
| | | WP | WATER POST |
| | | WSP | WATER SUPPLY POINT |
| | | WTP | WATER TREATMENT WORKS |

| Issue | Date | Description |
|---|---|---|
| | | |

CLIENT: GEO2
DWG No: 0085-GEO2-050424
REV:

SITE ADDRESS
Demolished Petrol Filling Station
Oldham
Manchester
M40 2FU

SCALE: Not to Scale A1
SURVEYED: R.J.
DRAWN: A.B.
DATE: 08-04-2024

SURVEY TYPE
TOPOGRAPHICAL [ ]
DRAINAGE [X]
UTILITY [X]

RCLP SURVEYS LTD
38 Lakeen Road, Intake, Doncaster, DN2 5HB.
Tel: 07714 186 732 Email: rclpsurveys@gmail.com
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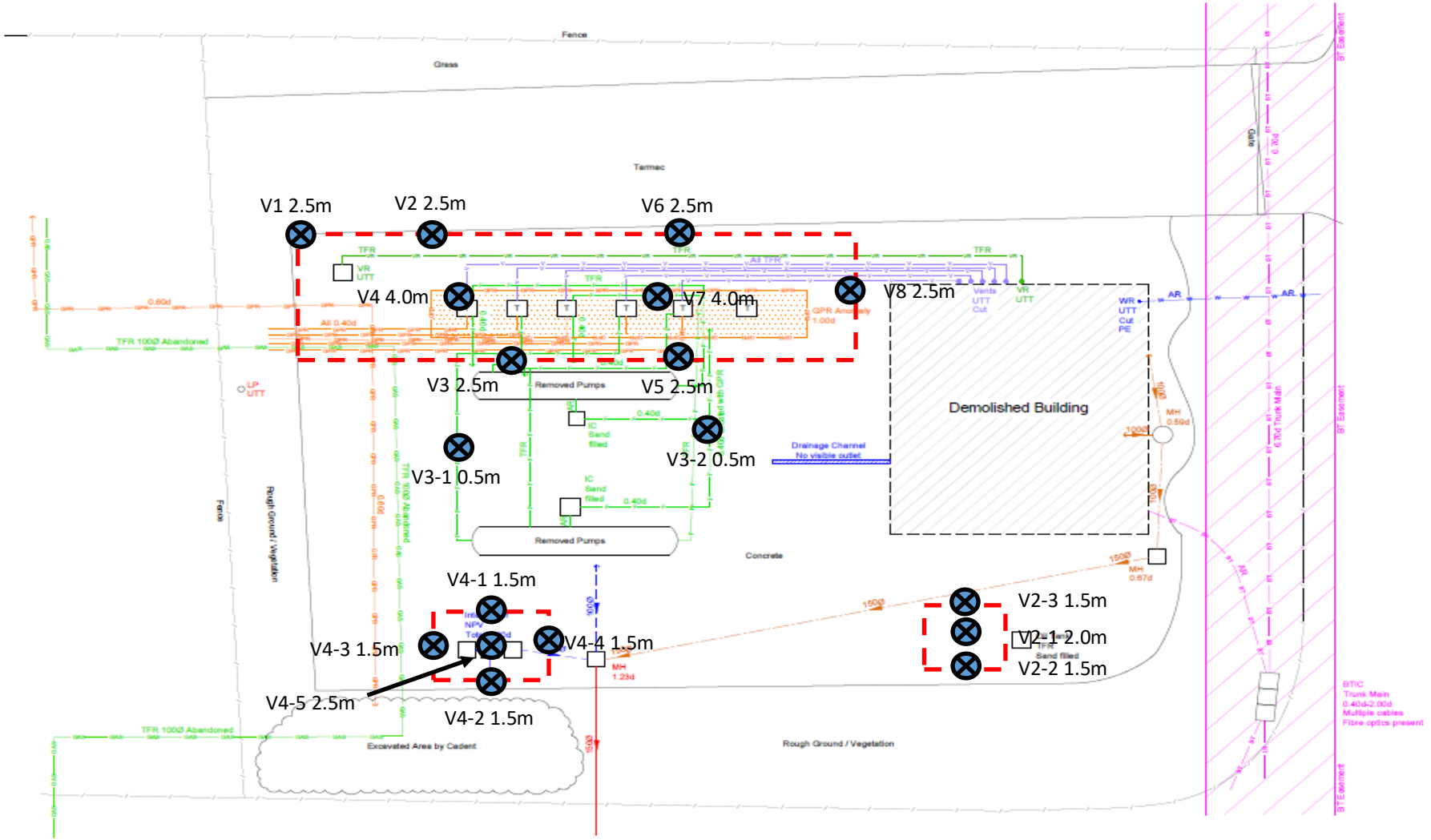
Not to Scale Reference Only

Disclaimer: Electro-magnetic and ground penetrating radar techniques have been used where reasonably practicable in the location of underground services/features. Please note that not all buried pipes, cables, drains, ducting and features can be detected and mapped in consideration of their depth, location, material type, geology and proximity to other utilities.Please note that all G.P.R depths are approximate only.Whilst every effort has been made to ensure accuracy, RCLP Surveys Ltd cannot be held responsible for any missed underground services/features that have not been identified. **Telecommunication covers can not and will not be lifted, these services will be searched for using G.P.R. with statutory drawings being needed from the relevant providers.** Where the precise position or depths of services/features are critical to the design or siteworks they must be verified by the use of trial excavation, ref: HSG47 document "Avoiding dangers from underground services". Please exercise due care and diligence when excavating. Services marked as TFR (taken from records) have not been proven on site. All reasonable effort and care has been made in searching through available record drawings. The completeness of the underground service information supplied to and by us cannot be guaranteed. This plan should not be used for planning and/or designing.

Not to Scale Reference Only

# Geo2 Reliance Street—Validation Sample Locations




Not to Scale Reference Only

PIPEWORK INSTALATION.

1. All pipework is to be medium weight galvenised mild steel pipe to comply with BS 1387 Table 2 with screwed and socketed joints. Fittings to comply with BS 143 and BS 21:1973.

2. All suction and vent lines bedded and surrounded in 150mm sulphate resisting concrete by the general contractor.

3. Pipe sizes to be:
Suctions: 38mm (under 21m run and static lift below 3600mm)
or: 50mm (over 21m)
Vents: 50mm
Fills: 100mm

4. The pipefitter is to note that the layout is diagrammatic only and is to ensure that the most economic layout is to be made. The pipefitter is to ensure that the correct side of the pumps are fed from the correct tanks.

5. All storage tanks are to be manufactured to BS 2594:1975. and are to be installed strictly in acccordance with BS:1974 and to the local petroleum officers approval. All tanks including derv are to be lowered onto a 150mm . thick rc. base and surrounded in min. 150 sulphate resisting concrete all to the approval of the local petroleum officer.

6. All tanks are to have new 600 x 600 Fibrelite FL1 covers and frames, colour:red complete with Fibresec mild steel saftey platforms size: 600 x 600 suspended on 4 no. m.s. galv. hangers and fitted 300mm below forecourt level. Where necessary Fibrelite FL3, 760 x 600 covers are to be fitted to offset fill mh's.

(colour:red).

7. Size of new tanks are to be confirmed by tank manufacturer prior to commencement of the works.

8. Pumps and self service equipment are to be supplied by the client and will be Tokheim Series 362 complete with 802 B/6 control unit etc.

9. All tanks are to be tested by the pipefitters when positioned and again prior to pipefitting. All to the approval of the local petroleum officer.

10. Where existing tanks are to be dealt with strictly in accordance with the local petroleum officers requirements and the Health and Safety regulations.

KEY TO LINES.

Derv line.

99 or 98 Octane.

91 Octane line.

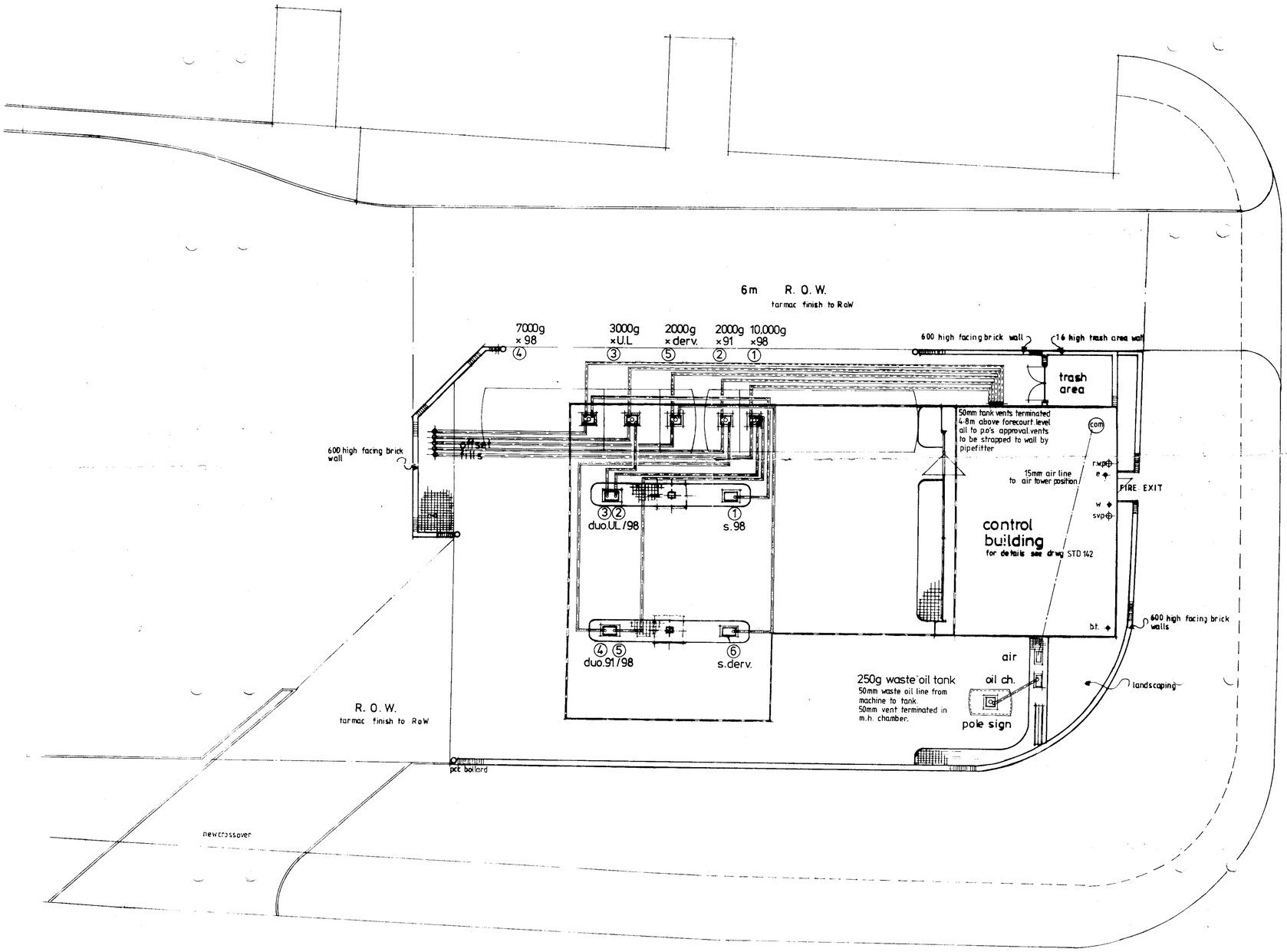
Unleaded line.

Tank vent line.

Offsetfill line.

Waste oil line.

Air line




DO NOT SCALE

AMENDMENTS

| NO. | DATE | AMENDMENT | BY |
|---|---|---|---|
| | | | |

NOTES

PROJECT
Proposed Development
Oldham Road
Manchester

TITLE
pipework + tank layout

| | |
|---|---|
| SCALE 1:100 | JOB NO. 1282 |
| DATE April 88 | |
| DRAWN M.C. | DWG. NO. 9 |
| CLIENT | |


CONQUEST DESIGNS LTD
CONQUEST HOUSE, ARTERIAL ROAD,
LAINDON, BASILDON, ESSEX SS15 6QP
BASILDON (0268) 540000


FOREST

# Appendix B – Soil Validation Laboratory Results and Certificates

envirolab
Hattersley Science & Technology Park
Stockport Road, Hattersley, SK14 3QU

# FINAL ANALYTICAL TEST REPORT

**Envirolab Job Number:** 24/04421
**Issue Number:** 1 **Date:** 13 May, 2024

**Client:**
Geo2 Remediation Ltd
Coniston House,
Louisa Street
Bradford
BD10 8NE

**Project Manager:** Peter Phillips
**Project Name:** Reliance Street (RS)
**Project Ref:** 1435
**Order No:** 1435/LAB/PP
**Date Samples Received:** 02/05/24
**Date Instructions Received:** 03/05/24
**Date Analysis Completed:** 13/05/24

**Approved by:**

Richard Wong
Client Manager

mCERTS THE ENVIRONMENT AGENCY'S MONITORING CERTIFICATION SCHEME
UKAS TESTING 1247

**Envirolab Job Number: 24/04421**

**Client Project Name: Reliance Street (RS)**

**Client Project Ref: 1435**

| Lab Sample ID | 24/04421/1 | 24/04421/2 | 24/04421/3 | 24/04421/4 | 24/04421/5 | 24/04421/6 | 24/04421/7 | Units | Limit of Detection | Method ref |
|---|---|---|---|---|---|---|---|---|---|---|
| Client Sample No | | | | | | | | | | |
| Client Sample ID | V1 | V2 | V3 | V4 | V5 | V6 | V7 | | | |
| Depth to Top | 2.50 | 2.50 | 2.50 | 4.00 | 2.50 | 2.50 | 4.00 | | | |
| Depth To Bottom | | | | | | | | | | |
| Date Sampled | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | | | |
| Sample Type | SOIL | SOIL | SOIL | SOIL | SOIL | SOIL | SOIL | | | |
| Sample Matrix Code | 6 | 6A | 6A | 6A | 6A | 6A | 6A | | | |
| % Stones >10mm$_A$ | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | % w/w | 0.1 | A-T-044 |

**Envirolab Job Number: 24/04421**

**Client Project Name: Reliance Street (RS)**

**Client Project Ref: 1435**

| Lab Sample ID | 24/04421/1 | 24/04421/2 | 24/04421/3 | 24/04421/4 | 24/04421/5 | 24/04421/6 | 24/04421/7 | Units | Limit of Detection | Method ref |
|---|---|---|---|---|---|---|---|---|---|---|
| Client Sample No | | | | | | | | | | |
| Client Sample ID | V1 | V2 | V3 | V4 | V5 | V6 | V7 | | | |
| Depth to Top | 2.50 | 2.50 | 2.50 | 4.00 | 2.50 | 2.50 | 4.00 | | | |
| Depth To Bottom | | | | | | | | | | |
| Date Sampled | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | | | |
| Sample Type | SOIL | SOIL | SOIL | SOIL | SOIL | SOIL | SOIL | | | |
| Sample Matrix Code | 6 | 6A | 6A | 6A | 6A | 6A | 6A | | | |
| TPH CWG with Clean Up | | | | | | | | | | |
| Ali >C5-C6$_A$ | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | mg/kg | 0.01 | A-T-022s |
| Ali >C6-C8$_A$ | 0.03 | 0.06 | 0.01 | 0.02 | 0.01 | 0.04 | 0.02 | mg/kg | 0.01 | A-T-022s |
| Ali >C8-C10$_A$ | <1 | <1 | <1 | <1 | <1 | <1 | <1 | mg/kg | 1 | A-T-055s |
| Ali >C10-C12$_A^{M\#}$ | <1 | <1 | <1 | <1 | <1 | <1 | <1 | mg/kg | 1 | A-T-055s |
| Ali >C12-C16$_A^{M\#}$ | <1 | <1 | <1 | 1 | <1 | <1 | <1 | mg/kg | 1 | A-T-055s |
| Ali >C16-C21$_A^{M\#}$ | <1 | <1 | <1 | <1 | <1 | <1 | <1 | mg/kg | 1 | A-T-055s |
| Ali >C21-C35$_A^{M\#}$ | <1 | 1 | 4 | 2 | 4 | 1 | 4 | mg/kg | 1 | A-T-055s |
| Total Aliphatics$_A$ | <1 | 1 | 4 | 3 | 4 | 1 | 4 | mg/kg | 1 | Calc-As Recd |
| Aro >C5-C7$_A^{\#}$ | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | mg/kg | 0.01 | A-T-022s |
| Aro >C7-C8$_A^{\#}$ | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | mg/kg | 0.01 | A-T-022s |
| Aro >C8-C10$_A$ | <1 | <1 | <1 | <1 | <1 | <1 | <1 | mg/kg | 1 | A-T-055s |
| Aro >C10-C12$_A$ | <1 | <1 | <1 | <1 | <1 | <1 | <1 | mg/kg | 1 | A-T-055s |
| Aro >C12-C16$_A$ | <1 | <1 | <1 | 1 | <1 | <1 | 2 | mg/kg | 1 | A-T-055s |
| Aro >C16-C21$_A^{M\#}$ | <1 | 1 | <1 | 1 | 1 | <1 | 2 | mg/kg | 1 | A-T-055s |
| Aro >C21-C35$_A^{M\#}$ | <1 | 2 | 2 | 2 | 4 | 1 | 4 | mg/kg | 1 | A-T-055s |
| Total Aromatics$_A$ | <1 | 4 | 2 | 5 | 5 | 1 | 8 | mg/kg | 1 | Calc-As Recd |
| TPH (Ali & Aro >C5-C35)$_A$ | <1 | 5 | 6 | 8 | 8 | 2 | 12 | mg/kg | 1 | Calc-As Recd |
| BTEX - Benzene$_A^{\#}$ | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | mg/kg | 0.01 | A-T-022s |
| BTEX - Toluene$_A^{\#}$ | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | mg/kg | 0.01 | A-T-022s |
| BTEX - Ethyl Benzene$_A^{\#}$ | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | mg/kg | 0.01 | A-T-022s |
| BTEX - m & p Xylene$_A^{\#}$ | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | mg/kg | 0.01 | A-T-022s |
| BTEX - o Xylene$_A^{\#}$ | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | mg/kg | 0.01 | A-T-022s |
| MTBE$_A^{\#}$ | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | mg/kg | 0.01 | A-T-022s |

**Envirolab Job Number: 24/04421**

**Client Project Name: Reliance Street (RS)**

**Client Project Ref: 1435**

| Lab Sample ID | 24/04421/8 | 24/04421/9 | 24/04421/10 | 24/04421/11 | | | | Units | Limit of Detection | Method ref |
|---|---|---|---|---|---|---|---|---|---|---|
| Client Sample No | | | | | | | | | | |
| Client Sample ID | V2-1 | V2-2 | V2-3 | WAC-OT | | | | | | |
| Depth to Top | 2.00 | 1.50 | 1.50 | | | | | | | |
| Depth To Bottom | | | | | | | | | | |
| Date Sampled | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | | | | | | |
| Sample Type | SOIL | SOIL | SOIL | SOIL | | | | | | |
| Sample Matrix Code | 6AE | 6A | 6 | 4AE | | | | | | |
| % Stones >10mm$_A$ | <0.1 | <0.1 | <0.1 | <0.1 | | | | % w/w | 0.1 | A-T-044 |
| Arsenic$_D$$^{M\#}$ | - | - | - | 8 | | | | mg/kg | 1 | A-T-024s |
| Barium$_D$ | - | - | - | 196 | | | | mg/kg | 1 | A-T-024s |
| Beryllium$_D$ | - | - | - | 0.7 | | | | mg/kg | 0.5 | A-T-024s |
| Boron (water soluble)$_D$$^{M\#}$ | - | - | - | <1.0 | | | | mg/kg | 1 | A-T-027s |
| Cadmium$_D$$^{M\#}$ | - | - | - | 0.7 | | | | mg/kg | 0.5 | A-T-024s |
| Copper$_D$$^{M\#}$ | - | - | - | 36 | | | | mg/kg | 1 | A-T-024s |
| Chromium$_D$$^{M\#}$ | - | - | - | 15 | | | | mg/kg | 1 | A-T-024s |
| Lead$_D$$^{M\#}$ | - | - | - | 257 | | | | mg/kg | 1 | A-T-024s |
| Mercury$_D$ | - | - | - | 1.22 | | | | mg/kg | 0.17 | A-T-024s |
| Nickel$_D$$^{M\#}$ | - | - | - | 16 | | | | mg/kg | 1 | A-T-024s |
| Selenium$_D$$^{M\#}$ | - | - | - | <1 | | | | mg/kg | 1 | A-T-024s |
| Vanadium$_D$$^{M\#}$ | - | - | - | 21 | | | | mg/kg | 1 | A-T-024s |
| Zinc$_D$$^{M\#}$ | - | - | - | 125 | | | | mg/kg | 5 | A-T-024s |

**Envirolab Job Number: 24/04421**

**Client Project Name: Reliance Street (RS)**

**Client Project Ref: 1435**

| Lab Sample ID | 24/04421/8 | 24/04421/9 | 24/04421/10 | 24/04421/11 | | | | Units | Limit of Detection | Method ref |
|---|---|---|---|---|---|---|---|---|---|---|
| Client Sample No | | | | | | | | | | |
| Client Sample ID | V2-1 | V2-2 | V2-3 | WAC-OT | | | | | | |
| Depth to Top | 2.00 | 1.50 | 1.50 | | | | | | | |
| Depth To Bottom | | | | | | | | | | |
| Date Sampled | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | | | | | | |
| Sample Type | SOIL | SOIL | SOIL | SOIL | | | | | | |
| Sample Matrix Code | 6AE | 6A | 6 | 4AE | | | | | | |
| **Asbestos in Soil (inc. matrix)** | | | | | | | | | | |
| Asbestos in soil$_{D}^{\#}$ | - | - | - | Amosite | | | | | | A-T-045 |
| Asbestos Matrix (visual)$_{D}$ | - | - | - | - | | | | | | A-T-045 |
| Asbestos Matrix (microscope)$_{D}$ | - | - | - | Loose Fibres | | | | | | A-T-045 |
| Asbestos ACM - Suitable for Water Absorption Test?$_{D}$ | - | - | - | N/A | | | | | | A-T-045 |
| | | | | | | | | | | |
| **Asbestos in Soil Quantification % (Hand Picking & Weighing)** | | | | | | | | | | |
| Asbestos in soil % composition (hand picking and weighing)$_{D}$ | - | - | - | 0.012 | | | | % w/w | 0.001 | A-T-054 |

| Lab Sample ID | 24/04421/8 | 24/04421/9 | 24/04421/10 | 24/04421/11 | | | | Units | Limit of Detection | Method ref |
|---|---|---|---|---|---|---|---|---|---|---|
| Client Sample No | | | | | | | | | | |
| Client Sample ID | V2-1 | V2-2 | V2-3 | WAC-OT | | | | | | |
| Depth to Top | 2.00 | 1.50 | 1.50 | | | | | | | |
| Depth To Bottom | | | | | | | | | | |
| Date Sampled | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | | | | | | |
| Sample Type | SOIL | SOIL | SOIL | SOIL | | | | | | |
| Sample Matrix Code | 6AE | 6A | 6 | 4AE | | | | | | |
| SVOC | | | | | | | | | | |
| 4-Bromophenyl phenyl ether$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Hexachlorobenzene$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Diethyl phthalate$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Dimethyl phthalate$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Dibenzofuran$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Carbazole$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Butylbenzyl phthalate$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Bis(2-ethylhexyl)phthalate$_A$ | - | - | - | <5000 | | | | µg/kg | 500 | A-T-052s |
| Bis(2-chloroethoxy)methane$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Bis(2-chloroethyl)ether$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| 4-Nitrophenol$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| 3+4-Methylphenol$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| 4-Chloro-3-methylphenol$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| 2-Nitrophenol$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| 2-Methylphenol$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| 1,2,4-Trichlorobenzene$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| 2-Chlorophenol$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| 2,6-Dinitrotoluene$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| 2,4-Dinitrotoluene$_A$ | - | - | - | 2050 | | | | µg/kg | 100 | A-T-052s |
| 2,4-Dimethylphenol$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| 2,4-Dichlorophenol$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| 2,4,6-Trichlorophenol$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| 2,4,5-Trichlorophenol$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| 1,4-Dichlorobenzene$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| 1,3-Dichlorobenzene$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| 1,2-Dichlorobenzene$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| 2-Chloronaphthalene$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| 2-Methylnaphthalene$_A$ | - | - | - | 13800 | | | | µg/kg | 100 | A-T-052s |
| Acenaphthylene$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Acenaphthene$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Anthracene$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Benzo(a)anthracene$_A$ | - | - | - | 1170 | | | | µg/kg | 100 | A-T-052s |

**Envirolab Job Number: 24/04421**

**Client Project Name: Reliance Street (RS)**

**Client Project Ref: 1435**

| Lab Sample ID | 24/04421/8 | 24/04421/9 | 24/04421/10 | 24/04421/11 | | | | Units | Limit of Detection | Method ref |
|---|---|---|---|---|---|---|---|---|---|---|
| Client Sample No | | | | | | | | | | |
| Client Sample ID | V2-1 | V2-2 | V2-3 | WAC-OT | | | | | | |
| Depth to Top | 2.00 | 1.50 | 1.50 | | | | | | | |
| Depth To Bottom | | | | | | | | | | |
| Date Sampled | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | | | | | | |
| Sample Type | SOIL | SOIL | SOIL | SOIL | | | | | | |
| Sample Matrix Code | 6AE | 6A | 6 | 4AE | | | | | | |
| Benzo(b)fluoranthene$_A$ | - | - | - | 1470 | | | | µg/kg | 100 | A-T-052s |
| Benzo(k)fluoranthene$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Benzo(a)pyrene$_A$ | - | - | - | 1210 | | | | µg/kg | 100 | A-T-052s |
| Benzo(ghi)perylene$_A$ | - | - | - | 1520 | | | | µg/kg | 100 | A-T-052s |
| Chrysene$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Fluoranthene$_A$ | - | - | - | 2170 | | | | µg/kg | 100 | A-T-052s |
| Fluorene$_A$ | - | - | - | 1350 | | | | µg/kg | 100 | A-T-052s |
| Indeno(1,2,3-cd)pyrene$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Phenanthrene$_A$ | - | - | - | 3220 | | | | µg/kg | 100 | A-T-052s |
| Pyrene$_A$ | - | - | - | 3030 | | | | µg/kg | 100 | A-T-052s |
| Naphthalene$_A$ | - | - | - | 5410 | | | | µg/kg | 100 | A-T-052s |
| Dibenzo(ah)anthracene$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Bis(2-chloroisopropyl)ether$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Phenol$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Pentachlorophenol$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| n-Nitroso-n-dipropylamine$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| n-Dioctylphthalate$_A$ | - | - | - | <5000 | | | | µg/kg | 500 | A-T-052s |
| n-Dibutylphthalate$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Nitrobenzene$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Isophorone$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Hexachloroethane$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Hexachlorobutadiene$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |
| Perylene$_A$ | - | - | - | <1000 | | | | µg/kg | 100 | A-T-052s |

**Envirolab Job Number: 24/04421**

**Client Project Name: Reliance Street (RS)**

**Client Project Ref: 1435**

| Lab Sample ID | 24/04421/8 | 24/04421/9 | 24/04421/10 | 24/04421/11 | | | | Units | Limit of Detection | Method ref |
|---|---|---|---|---|---|---|---|---|---|---|
| Client Sample No | | | | | | | | | | |
| Client Sample ID | V2-1 | V2-2 | V2-3 | WAC-OT | | | | | | |
| Depth to Top | 2.00 | 1.50 | 1.50 | | | | | | | |
| Depth To Bottom | | | | | | | | | | |
| Date Sampled | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | | | | | | |
| Sample Type | SOIL | SOIL | SOIL | SOIL | | | | | | |
| Sample Matrix Code | 6AE | 6A | 6 | 4AE | | | | | | |
| **VOC** | | | | | | | | | | |
| Dichlorodifluoromethane$_A$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| Chloromethane$_A$ | - | - | - | <50 | | | | µg/kg | 10 | A-T-006s |
| Vinyl Chloride (Chloroethene)$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| Bromomethane$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| Chloroethane$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| Trichlorofluoromethane$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| 1,1-Dichloroethene$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| Carbon Disulphide$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| Dichloromethane$_A$ | - | - | - | <25 | | | | µg/kg | 5 | A-T-006s |
| trans 1,2-Dichloroethene$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| 1,1-Dichloroethane$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| cis 1,2-Dichloroethene$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| 2,2-Dichloropropane$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| Bromochloromethane$_A^{\#}$ | - | - | - | <25 | | | | µg/kg | 5 | A-T-006s |
| Chloroform$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| 1,1,1-Trichloroethane$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| 1,1-Dichloropropene$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| Carbon Tetrachloride$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| 1,2-Dichloroethane$_A^{\#}$ | - | - | - | <10 | | | | µg/kg | 2 | A-T-006s |
| Benzene$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| Trichloroethene$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| 1,2-Dichloropropane$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| Dibromomethane$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| Bromodichloromethane$_A^{\#}$ | - | - | - | <50 | | | | µg/kg | 10 | A-T-006s |
| cis 1,3-Dichloropropene$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| Toluene$_A^{\#}$ | - | - | - | 155 | | | | µg/kg | 1 | A-T-006s |
| trans 1,3-Dichloropropene$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| 1,1,2-Trichloroethane$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| 1,3-Dichloropropane$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| Tetrachloroethene$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| Dibromochloromethane$_A^{\#}$ | - | - | - | <15 | | | | µg/kg | 3 | A-T-006s |
| 1,2-Dibromoethane$_A^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |

Envirolab Job Number: 24/04421

Client Project Name: Reliance Street (RS)

Client Project Ref: 1435

| Lab Sample ID | 24/04421/8 | 24/04421/9 | 24/04421/10 | 24/04421/11 | | | | Units | Limit of Detection | Method ref |
|---|---|---|---|---|---|---|---|---|---|---|
| Client Sample No | | | | | | | | | | |
| Client Sample ID | V2-1 | V2-2 | V2-3 | WAC-OT | | | | | | |
| Depth to Top | 2.00 | 1.50 | 1.50 | | | | | | | |
| Depth To Bottom | | | | | | | | | | |
| Date Sampled | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | | | | | | |
| Sample Type | SOIL | SOIL | SOIL | SOIL | | | | | | |
| Sample Matrix Code | 6AE | 6A | 6 | 4AE | | | | | | |
| Chlorobenzene$_{A}^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| 1,1,1,2-Tetrachloroethane$_{A}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| Ethylbenzene$_{A}^{\#}$ | - | - | - | 149 | | | | µg/kg | 1 | A-T-006s |
| m & p Xylene$_{A}^{\#}$ | - | - | - | 485 | | | | µg/kg | 1 | A-T-006s |
| o-Xylene$_{A}^{\#}$ | - | - | - | 240 | | | | µg/kg | 1 | A-T-006s |
| Styrene$_{A}^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| Bromoform$_{A}^{\#}$ | - | - | - | <15 | | | | µg/kg | 3 | A-T-006s |
| Isopropylbenzene$_{A}^{\#}$ | - | - | - | 21 | | | | µg/kg | 1 | A-T-006s |
| 1,1,2,2-Tetrachloroethane$_{A}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| 1,2,3-Trichloropropane$_{A}^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| Bromobenzene$_{A}^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| n-Propylbenzene$_{A}^{\#}$ | - | - | - | 76 | | | | µg/kg | 1 | A-T-006s |
| 2-Chlorotoluene$_{A}^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| 1,3,5-Trimethylbenzene$_{A}^{\#}$ | - | - | - | 144 | | | | µg/kg | 1 | A-T-006s |
| 4-Chlorotoluene$_{A}^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| tert-Butylbenzene$_{A}^{\#}$ | - | - | - | <10 | | | | µg/kg | 2 | A-T-006s |
| 1,2,4-Trimethylbenzene$_{A}^{\#}$ | - | - | - | 583 | | | | µg/kg | 1 | A-T-006s |
| sec-Butylbenzene$_{A}^{\#}$ | - | - | - | 9 | | | | µg/kg | 1 | A-T-006s |
| 4-Isopropyltoluene$_{A}^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| 1,3-Dichlorobenzene$_{A}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| 1,4-Dichlorobenzene$_{A}^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| n-Butylbenzene$_{A}^{\#}$ | - | - | - | <30 | | | | µg/kg | 1 | A-T-006s |
| 1,2-Dichlorobenzene$_{A}^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| 1,2-Dibromo-3-chloropropane (DCBP)$_{A}$ | - | - | - | <10 | | | | µg/kg | 2 | A-T-006s |
| 1,2,4-Trichlorobenzene$_{A}$ | - | - | - | <15 | | | | µg/kg | 3 | A-T-006s |
| Hexachlorobutadiene$_{A}^{\#}$ | - | - | - | <5 | | | | µg/kg | 1 | A-T-006s |
| 1,2,3-Trichlorobenzene$_{A}$ | - | - | - | <15 | | | | µg/kg | 3 | A-T-006s |

**Envirolab Job Number: 24/04421**

**Client Project Name: Reliance Street (RS)**

**Client Project Ref: 1435**

| Lab Sample ID | 24/04421/8 | 24/04421/9 | 24/04421/10 | 24/04421/11 | | | | Units | Limit of Detection | Method ref |
|---|---|---|---|---|---|---|---|---|---|---|
| Client Sample No | | | | | | | | | | |
| Client Sample ID | V2-1 | V2-2 | V2-3 | WAC-OT | | | | | | |
| Depth to Top | 2.00 | 1.50 | 1.50 | | | | | | | |
| Depth To Bottom | | | | | | | | | | |
| Date Sampled | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | 30-Apr-24 | | | | | | |
| Sample Type | SOIL | SOIL | SOIL | SOIL | | | | | | |
| Sample Matrix Code | 6AE | 6A | 6 | 4AE | | | | | | |
| **TPH CWG with Clean Up** | | | | | | | | | | |
| Ali >C5-C6$_A$ | <0.01 | <0.01 | <0.01 | 0.36 | | | | mg/kg | 0.01 | A-T-022s |
| Ali >C6-C8$_A$ | 0.01 | 0.03 | 0.03 | 10.6 | | | | mg/kg | 0.01 | A-T-022s |
| Ali >C8-C10$_A$ | <1 | <1 | <1 | 53 | | | | mg/kg | 1 | A-T-055s |
| Ali >C10-C12$_A$$^{M\#}$ | <1 | <1 | <1 | 63 | | | | mg/kg | 1 | A-T-055s |
| Ali >C12-C16$_A$$^{M\#}$ | <1 | <1 | <1 | 106 | | | | mg/kg | 1 | A-T-055s |
| Ali >C16-C21$_A$$^{M\#}$ | <1 | <1 | <1 | 135 | | | | mg/kg | 1 | A-T-055s |
| Ali >C21-C35$_A$$^{M\#}$ | 1 | <1 | <1 | 5090 | | | | mg/kg | 1 | A-T-055s |
| Total Aliphatics$_A$ | 1 | <1 | <1 | 5460 | | | | mg/kg | 1 | Calc-As Recd |
| Aro >C5-C7$_A$$^{\#}$ | <0.01 | <0.01 | <0.01 | 0.04 | | | | mg/kg | 0.01 | A-T-022s |
| Aro >C7-C8$_A$$^{\#}$ | <0.01 | <0.01 | <0.01 | 1.69 | | | | mg/kg | 0.01 | A-T-022s |
| Aro >C8-C10$_A$ | <1 | <1 | <1 | 292 | | | | mg/kg | 1 | A-T-055s |
| Aro >C10-C12$_A$ | <1 | <1 | <1 | 271 | | | | mg/kg | 1 | A-T-055s |
| Aro >C12-C16$_A$ | <1 | <1 | <1 | 214 | | | | mg/kg | 1 | A-T-055s |
| Aro >C16-C21$_A$$^{M\#}$ | <1 | <1 | <1 | 146 | | | | mg/kg | 1 | A-T-055s |
| Aro >C21-C35$_A$$^{M\#}$ | <1 | <1 | <1 | 102 | | | | mg/kg | 1 | A-T-055s |
| Total Aromatics$_A$ | <1 | <1 | <1 | 1030 | | | | mg/kg | 1 | Calc-As Recd |
| TPH (Ali & Aro >C5-C35)$_A$ | 1 | <1 | <1 | 6480 | | | | mg/kg | 1 | Calc-As Recd |
| BTEX - Benzene$_A$$^{\#}$ | <0.01 | <0.01 | <0.01 | 0.04 | | | | mg/kg | 0.01 | A-T-022s |
| BTEX - Toluene$_A$$^{\#}$ | <0.01 | <0.01 | <0.01 | 1.69 | | | | mg/kg | 0.01 | A-T-022s |
| BTEX - Ethyl Benzene$_A$$^{\#}$ | 0.02 | <0.01 | <0.01 | 1.09 | | | | mg/kg | 0.01 | A-T-022s |
| BTEX - m & p Xylene$_A$$^{\#}$ | <0.01 | <0.01 | <0.01 | 3.44 | | | | mg/kg | 0.01 | A-T-022s |
| BTEX - o Xylene$_A$$^{\#}$ | 0.02 | <0.01 | <0.01 | 1.83 | | | | mg/kg | 0.01 | A-T-022s |
| MTBE$_A$$^{\#}$ | <0.01 | <0.01 | <0.01 | <0.01 | | | | mg/kg | 0.01 | A-T-022s |

## Report Notes

**General**
This report shall not be reproduced, except in full, without written approval from Envirolab.
The results reported herein relate only to the material supplied to the laboratory.
The residue of any samples contained within this report, and any received within the same delivery, will be disposed of **four weeks** after the initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of **six months** after the initial Asbestos testing is completed.
Analytical results reflect the quality of the sample at the time of analysis only.
Opinions and Interpretations expressed are outside our scope of accreditation.
The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client.
A deviating sample report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

**Key**

| | |
|---|---|
| Superscript "#" | Accredited to ISO 17025 |
| Superscript "M" | Accredited to MCertS |
| Superscript "U" | Individual result not accredited |
| None of the above symbols | Analysis unaccredited |
| Subscript "A" | Analysis performed on as-received Sample |
| Subscript "D" | Analysis performed on the dried sample, crushed to pass 2mm sieve. |
| Subscript "^" | Analysis has dependant options against results. Details appear in the comments of your Sample receipt |
| IS | Insufficient Sample for analysis |
| US | Unsuitable Sample for analysis |
| NDP | No Determination Possible |
| NAD | No Asbestos Detected |
| N/A | Not applicable |

**Asbestos**
Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis
Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing, and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

**Assigned Matrix Codes**

| | | | | | |
|---|---|---|---|---|---|
| 1 | SAND | 6 | CLAY/LOAM | A | Contains Stones |
| 2 | LOAM | 7 | OTHER | B | Contains Construction Rubble |
| 3 | CLAY | 8 | Asbestos Bulk (Only Asbestos ID accredited) | C | Contains visible hydrocarbons |
| 4 | LOAM/SAND | 9 | Incinerator Ash (some Metals accredited) | D | Contains glass / metal |
| 5 | SAND/CLAY | | | E | Contains roots / twigs |
| **Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.** | | | | | |

**Soil Chemical Analysis:**
All results are reported as dry weight (<40°C).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

**TPH by method A-T-007:**
For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.
Results "with Clean up" indicates samples cleaned up with Silica during extraction.

**EPH CWG (method A-T-055) from TPH CWG:**
EPH CWG results have humics mathematically subtracted through instrument calculation.
Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

**Electrical Conductivity of water by method A-T-037:**
Results greater than 12900µS/cm @ 25$^{o}$C / 11550µS/cm @ 20$^{o}$C fall outside the accreditation range and as such are unaccredited.

Please contact your client manager if you require any further information.

# Envirolab Deviating Samples Report

Hattersley Science & Technology Park, Stockport Road, Hattersley, SK14 3QU
Tel. 0161 368 4921 email. ask@envlab.co.uk

**Client:** Geo2 Remediation Ltd, Coniston House,, Louisa Street, Bradford, BD10 8NE

**Project No:** 24/04421

**Date Received:** 03/05/2024 (am)

**Project:** Reliance Street (RS)

**Cool Box Temperatures (°C):** 18.1

**Clients Project No:** 1435

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

# Envirolab Analysis Dates

| Lab Sample ID | 24/04421/1 | 24/04421/2 | 24/04421/3 | 24/04421/4 | 24/04421/5 | 24/04421/6 | 24/04421/7 | 24/04421/8 | 24/04421/9 | 24/04421/10 | 24/04421/11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Client Sample No | | | | | | | | | | | |
| Client Sample ID/Depth | V1 2.50m | V2 2.50m | V3 2.50m | V4 4.00m | V5 2.50m | V6 2.50m | V7 4.00m | V2-1 2.00m | V2-2 1.50m | V2-3 1.50m | WAC-OT |
| Date Sampled | 30/04/24 | 30/04/24 | 30/04/24 | 30/04/24 | 30/04/24 | 30/04/24 | 30/04/24 | 30/04/24 | 30/04/24 | 30/04/24 | 30/04/24 |
| A-T-004s | | | | | | | | | | | 10/05/2024 |
| A-T-006s | | | | | | | | | | | 09/05/2024 |
| A-T-007s | | | | | | | | | | | 10/05/2024 |
| A-T-019s | | | | | | | | | | | 08/05/2024 |
| A-T-022s | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 |
| A-T-024s | | | | | | | | | | | 09/05/2024 |
| A-T-025w | | | | | | | | | | | 10/05/2024 |
| A-T-026w | | | | | | | | | | | 10/05/2024 |
| A-T-026w (F) | | | | | | | | | | | 10/05/2024 |
| A-T-027s | | | | | | | | | | | 09/05/2024 |
| A-T-030s | | | | | | | | | | | 08/05/2024 |
| A-T-031s | | | | | | | | | | | 09/05/2024 |
| A-T-031w | | | | | | | | | | | 10/05/2024 |
| A-T-032s | | | | | | | | | | | 09/05/2024 |
| A-T-032w | | | | | | | | | | | 10/05/2024 |
| A-T-037w | | | | | | | | | | | 10/05/2024 |
| A-T-044 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 |
| A-T-045 | | | | | | | | | | | 07/05/2024 |
| A-T-050w | | | | | | | | | | | 10/05/2024 |
| A-T-052s | | | | | | | | | | | 10/05/2024 |
| A-T-054 | | | | | | | | | | | 13/05/2024 |
| A-T-055s | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 |
| A-T-ANCs | | | | | | | | | | | 08/05/2024 |
| Calc | | | | | | | | | | | 07/05/2024 |
| Calc-As Recd | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 | 08/05/2024 |
| Calc-no stones | | | | | | | | | | | 10/05/2024 |
| Probe (w) | | | | | | | | | | | 10/05/2024 |

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

**End of Report**

envirolab
Hattersley Science & Technology Park
Stockport Road, Hattersley, SK14 3QU

# FINAL ANALYTICAL TEST REPORT

**Envirolab Job Number:** 24/04560
**Issue Number:** 1 **Date:** 14 May, 2024

**Client:** Geo2 Remediation Ltd
Coniston House,
Louisa Street
Bradford
BD10 8NE

**Project Manager:** Peter Phillips
**Project Name:** Reliance Street (RS)
**Project Ref:** 1435
**Order No:** 1435/LAB/PP
**Date Samples Received:** 08/05/24
**Date Instructions Received:** 09/05/24
**Date Analysis Completed:** 14/05/24

**Approved by:**

Richard Wong
Client Manager

Envirolab Job Number: 24/04560

Client Project Name: Reliance Street (RS)

Client Project Ref: 1435

| Lab Sample ID | 24/04560/1 | 24/04560/2 | 24/04560/3 | 24/04560/4 | 24/04560/5 | 24/04560/6 | 24/04560/7 | Units | Limit of Detection | Method ref |
|---|---|---|---|---|---|---|---|---|---|---|
| Client Sample No | | | | | | | | | | |
| Client Sample ID | V8 | V3-1 | V3-2 | V4-1 | V4-2 | V4-3 | V4-4 | | | |
| Depth to Top | 2.50 | 0.50 | 0.50 | 1.50 | 2.00 | 1.50 | 1.50 | | | |
| Depth To Bottom | | | | | | | | | | |
| Date Sampled | 08-May-24 | 07-May-24 | 08-May-24 | 08-May-24 | 08-May-24 | 08-May-24 | 08-May-24 | | | |
| Sample Type | SOIL | SOIL | SOIL | SOIL | SOIL | SOIL | SOIL | | | |
| Sample Matrix Code | 6A | 6AB | 4AB | 6A | 6A | 6A | 6 | | | |
| % Stones >10mm$_A$ | <0.1 | 26.2 | 17.0 | <0.1 | <0.1 | <0.1 | <0.1 | % w/w | 0.1 | A-T-044 |

Envirolab Job Number: 24/04560

Client Project Name: Reliance Street (RS)

Client Project Ref: 1435

| Lab Sample ID | 24/04560/1 | 24/04560/2 | 24/04560/3 | 24/04560/4 | 24/04560/5 | 24/04560/6 | 24/04560/7 | Units | Limit of Detection | Method ref |
|---|---|---|---|---|---|---|---|---|---|---|
| Client Sample No | | | | | | | | | | |
| Client Sample ID | V8 | V3-1 | V3-2 | V4-1 | V4-2 | V4-3 | V4-4 | | | |
| Depth to Top | 2.50 | 0.50 | 0.50 | 1.50 | 2.00 | 1.50 | 1.50 | | | |
| Depth To Bottom | | | | | | | | | | |
| Date Sampled | 08-May-24 | 07-May-24 | 08-May-24 | 08-May-24 | 08-May-24 | 08-May-24 | 08-May-24 | | | |
| Sample Type | SOIL | SOIL | SOIL | SOIL | SOIL | SOIL | SOIL | | | |
| Sample Matrix Code | 6A | 6AB | 4AB | 6A | 6A | 6A | 6 | | | |
| TPH CWG with Clean Up | | | | | | | | | | |
| Ali >C5-C6$_A$ | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | mg/kg | 0.01 | A-T-022s |
| Ali >C6-C8$_A$ | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | mg/kg | 0.01 | A-T-022s |
| Ali >C8-C10$_A$ | <1 | <1 | <1 | <1 | <1 | <1 | <1 | mg/kg | 1 | A-T-055s |
| Ali >C10-C12$_A^{M\#}$ | <1 | <1 | <1 | <1 | <1 | <1 | <1 | mg/kg | 1 | A-T-055s |
| Ali >C12-C16$_A^{M\#}$ | <1 | <1 | 7 | <1 | <1 | <1 | 4 | mg/kg | 1 | A-T-055s |
| Ali >C16-C21$_A^{M\#}$ | <1 | <1 | 8 | <1 | <1 | <1 | 5 | mg/kg | 1 | A-T-055s |
| Ali >C21-C35$_A^{M\#}$ | 7 | 7 | 10 | 1 | <1 | 1 | 4 | mg/kg | 1 | A-T-055s |
| Total Aliphatics$_A$ | 7 | 8 | 25 | 1 | <1 | 1 | 13 | mg/kg | 1 | Calc-As Recd |
| Aro >C5-C7$_A^{\#}$ | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | mg/kg | 0.01 | A-T-022s |
| Aro >C7-C8$_A^{\#}$ | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | mg/kg | 0.01 | A-T-022s |
| Aro >C8-C10$_A$ | <1 | 2 | 6 | <1 | <1 | 3 | 4 | mg/kg | 1 | A-T-055s |
| Aro >C10-C12$_A$ | <1 | <1 | <1 | <1 | <1 | 3 | 3 | mg/kg | 1 | A-T-055s |
| Aro >C12-C16$_A$ | <1 | 2 | 7 | <1 | <1 | 1 | 4 | mg/kg | 1 | A-T-055s |
| Aro >C16-C21$_A^{M\#}$ | <1 | 6 | 14 | <1 | <1 | <1 | 3 | mg/kg | 1 | A-T-055s |
| Aro >C21-C35$_A^{M\#}$ | 4 | 22 | 38 | 1 | <1 | <1 | 1 | mg/kg | 1 | A-T-055s |
| Total Aromatics$_A$ | 4 | 31 | 65 | 1 | <1 | 6 | 14 | mg/kg | 1 | Calc-As Recd |
| TPH (Ali & Aro >C5-C35)$_A$ | 11 | 39 | 90 | 2 | <1 | 8 | 27 | mg/kg | 1 | Calc-As Recd |
| BTEX - Benzene$_A^{\#}$ | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | mg/kg | 0.01 | A-T-022s |
| BTEX - Toluene$_A^{\#}$ | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | mg/kg | 0.01 | A-T-022s |
| BTEX - Ethyl Benzene$_A^{\#}$ | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | mg/kg | 0.01 | A-T-022s |
| BTEX - m & p Xylene$_A^{\#}$ | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | mg/kg | 0.01 | A-T-022s |
| BTEX - o Xylene$_A^{\#}$ | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | mg/kg | 0.01 | A-T-022s |
| MTBE$_A^{\#}$ | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | mg/kg | 0.01 | A-T-022s |

Envirolab Job Number: 24/04560

Client Project Name: Reliance Street (RS)

Client Project Ref: 1435

| Lab Sample ID | 24/04560/8 | 24/04560/9 | 24/04560/10 | 24/04560/11 | | | | Units | Limit of Detection | Method ref |
|---|---|---|---|---|---|---|---|---|---|---|
| Client Sample No | | | | | | | | | | |
| Client Sample ID | V4-5 | Crush-1 | Crush-2 | Crush-3 | | | | | | |
| Depth to Top | 2.50 | | | | | | | | | |
| Depth To Bottom | | | | | | | | | | |
| Date Sampled | 08-May-24 | 07-May-24 | 07-May-24 | 07-May-24 | | | | | | |
| Sample Type | SOIL | SOLID | SOIL | SOIL | | | | | | |
| Sample Matrix Code | 6A | 7 | 4AB | 4ABE | | | | | | |
| % Stones >10mm$_A$ | <0.1 | <0.1 | <0.1 | <0.1 | | | | % w/w | 0.1 | A-T-044 |
| pH$_D$$^{M\#}$ | - | 12.18$^U$ | 11.91 | 11.87 | | | | pH | 0.01 | A-T-031s |
| Sulphate (water sol 2:1)$_D$$^{M\#}$ | - | 0.01$^U$ | 0.01 | 0.18 | | | | g/l | 0.01 | A-T-026s |
| Sulphate (acid soluble)$_D$$^{M\#}$ | - | 2900$^U$ | 2100 | 1900 | | | | mg/kg | 200 | A-T-028s |
| Sulphate BRE (total potential)$_D$ | - | 0.33 | 0.21 | 0.18 | | | | % w/w | 0.03 | A-T-024s |
| Sulphur BRE (total)$_D$ | - | 0.11 | 0.07 | 0.06 | | | | % w/w | 0.01 | A-T-024s |
| Arsenic$_D$$^{M\#}$ | - | 3$^U$ | 4 | 2 | | | | mg/kg | 1 | A-T-024s |
| Barium$_D$ | - | 73 | 76 | 40 | | | | mg/kg | 1 | A-T-024s |
| Beryllium$_D$ | - | <0.5 | <0.5 | <0.5 | | | | mg/kg | 0.5 | A-T-024s |
| Boron (water soluble)$_D$$^{M\#}$ | - | <1.0$^U$ | <1.0 | <1.0 | | | | mg/kg | 1 | A-T-027s |
| Cadmium$_D$$^{M\#}$ | - | <0.5$^U$ | <0.5 | <0.5 | | | | mg/kg | 0.5 | A-T-024s |
| Copper$_D$$^{M\#}$ | - | 12$^U$ | 17 | 7 | | | | mg/kg | 1 | A-T-024s |
| Chromium$_D$$^{M\#}$ | - | 20$^U$ | 12 | 8 | | | | mg/kg | 1 | A-T-024s |
| Chromium (hexavalent)$_D$ | - | <1 | <1 | <1 | | | | mg/kg | 1 | A-T-040s |
| Chromium (trivalent) | - | 20 | 12 | 8 | | | | mg/kg | 1 | Calc |
| Lead$_D$$^{M\#}$ | - | 37$^U$ | 44 | 20 | | | | mg/kg | 1 | A-T-024s |
| Mercury$_D$ | - | <0.17 | <0.17 | <0.17 | | | | mg/kg | 0.17 | A-T-024s |
| Nickel$_D$$^{M\#}$ | - | 11$^U$ | 10 | 5 | | | | mg/kg | 1 | A-T-024s |
| Selenium$_D$$^{M\#}$ | - | <1$^U$ | <1 | <1 | | | | mg/kg | 1 | A-T-024s |
| Vanadium$_D$$^{M\#}$ | - | 10$^U$ | 12 | 9 | | | | mg/kg | 1 | A-T-024s |
| Zinc$_D$$^{M\#}$ | - | 62$^U$ | 50 | 46 | | | | mg/kg | 5 | A-T-024s |

Envirolab Job Number: 24/04560

Client Project Name: Reliance Street (RS)

Client Project Ref: 1435

| Lab Sample ID | 24/04560/8 | 24/04560/9 | 24/04560/10 | 24/04560/11 | | | | Units | Limit of Detection | Method ref |
|---|---|---|---|---|---|---|---|---|---|---|
| Client Sample No | | | | | | | | | | |
| Client Sample ID | V4-5 | Crush-1 | Crush-2 | Crush-3 | | | | | | |
| Depth to Top | 2.50 | | | | | | | | | |
| Depth To Bottom | | | | | | | | | | |
| Date Sampled | 08-May-24 | 07-May-24 | 07-May-24 | 07-May-24 | | | | | | |
| Sample Type | SOIL | SOLID | SOIL | SOIL | | | | | | |
| Sample Matrix Code | 6A | 7 | 4AB | 4ABE | | | | | | |
| **Asbestos in Soil (inc. matrix) ^** | | | | | | | | | | |
| Asbestos in soil$_{D}^{\#}$ | - | NAD | Amosite | Amosite | | | | | | A-T-045 |
| Asbestos Matrix (visual)$_{D}$ | - | - | - | - | | | | | | A-T-045 |
| Asbestos Matrix (microscope)$_{D}$ | - | - | Board | Board | | | | | | A-T-045 |
| Asbestos ACM - Suitable for Water Absorption Test?$_{D}$ | - | N/A | No | No | | | | | | A-T-045 |
| | | | | | | | | | | |
| **Asbestos in Soil Quantification % (Hand Picking & Weighing)** | | | | | | | | | | |
| Asbestos in soil % composition (hand picking and weighing)$_{D}$ | - | - | <0.001 | <0.001 | | | | % w/w | 0.001 | A-T-054 |

Envirolab Job Number: 24/04560

Client Project Name: Reliance Street (RS)

Client Project Ref: 1435

| Lab Sample ID | 24/04560/8 | 24/04560/9 | 24/04560/10 | 24/04560/11 | | | | Units | Limit of Detection | Method ref |
|---|---|---|---|---|---|---|---|---|---|---|
| Client Sample No | | | | | | | | | | |
| Client Sample ID | V4-5 | Crush-1 | Crush-2 | Crush-3 | | | | | | |
| Depth to Top | 2.50 | | | | | | | | | |
| Depth To Bottom | | | | | | | | | | |
| Date Sampled | 08-May-24 | 07-May-24 | 07-May-24 | 07-May-24 | | | | | | |
| Sample Type | SOIL | SOLID | SOIL | SOIL | | | | | | |
| Sample Matrix Code | 6A | 7 | 4AB | 4ABE | | | | | | |
| TPH CWG with Clean Up | | | | | | | | | | |
| Ali >C5-C6$_A$ | <0.01 | <0.05 | <0.01 | <0.01 | | | | mg/kg | 0.01 | A-T-022s |
| Ali >C6-C8$_A$ | <0.01 | <0.05 | <0.01 | <0.01 | | | | mg/kg | 0.01 | A-T-022s |
| Ali >C8-C10$_A$ | <1 | <10 | 2 | <1 | | | | mg/kg | 1 | A-T-055s |
| Ali >C10-C12$_A^{M\#}$ | <1 | <10$^U$ | 7 | 1 | | | | mg/kg | 1 | A-T-055s |
| Ali >C12-C16$_A^{M\#}$ | 2 | 18$^U$ | 33 | 7 | | | | mg/kg | 1 | A-T-055s |
| Ali >C16-C21$_A^{M\#}$ | 2 | 35$^U$ | 39 | 14 | | | | mg/kg | 1 | A-T-055s |
| Ali >C21-C35$_A^{M\#}$ | 2 | 60$^U$ | 127 | 103 | | | | mg/kg | 1 | A-T-055s |
| Total Aliphatics$_A$ | 7 | 112 | 208 | 125 | | | | mg/kg | 1 | Calc-As Recd |
| Aro >C5-C7$_A^{\#}$ | <0.01 | <0.05$^U$ | <0.01 | <0.01 | | | | mg/kg | 0.01 | A-T-022s |
| Aro >C7-C8$_A^{\#}$ | <0.01 | <0.05$^U$ | <0.01 | <0.01 | | | | mg/kg | 0.01 | A-T-022s |
| Aro >C8-C10$_A$ | <1 | 132 | 10 | 11 | | | | mg/kg | 1 | A-T-055s |
| Aro >C10-C12$_A$ | <1 | <10 | 9 | 1 | | | | mg/kg | 1 | A-T-055s |
| Aro >C12-C16$_A$ | 1 | <10 | 20 | 5 | | | | mg/kg | 1 | A-T-055s |
| Aro >C16-C21$_A^{M\#}$ | 1 | 16$^U$ | 19 | 10 | | | | mg/kg | 1 | A-T-055s |
| Aro >C21-C35$_A^{M\#}$ | 2 | 16$^U$ | 39 | 59 | | | | mg/kg | 1 | A-T-055s |
| Total Aromatics$_A$ | 5 | 164 | 96 | 86 | | | | mg/kg | 1 | Calc-As Recd |
| TPH (Ali & Aro >C5-C35)$_A$ | 12 | 276 | 304 | 210 | | | | mg/kg | 1 | Calc-As Recd |
| BTEX - Benzene$_A^{\#}$ | <0.01 | <0.05$^U$ | <0.01 | <0.01 | | | | mg/kg | 0.01 | A-T-022s |
| BTEX - Toluene$_A^{\#}$ | <0.01 | <0.05$^U$ | <0.01 | <0.01 | | | | mg/kg | 0.01 | A-T-022s |
| BTEX - Ethyl Benzene$_A^{\#}$ | <0.01 | <0.05$^U$ | <0.01 | <0.01 | | | | mg/kg | 0.01 | A-T-022s |
| BTEX - m & p Xylene$_A^{\#}$ | <0.01 | <0.05$^U$ | 0.01 | <0.01 | | | | mg/kg | 0.01 | A-T-022s |
| BTEX - o Xylene$_A^{\#}$ | <0.01 | <0.05$^U$ | 0.01 | <0.01 | | | | mg/kg | 0.01 | A-T-022s |
| MTBE$_A^{\#}$ | <0.01 | <0.05$^U$ | <0.01 | <0.01 | | | | mg/kg | 0.01 | A-T-022s |

## Report Notes

**General**
This report shall not be reproduced, except in full, without written approval from Envirolab.
The results reported herein relate only to the material supplied to the laboratory.
The residue of any samples contained within this report, and any received within the same delivery, will be disposed of **four weeks** after the initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of **six months** after the initial Asbestos testing is completed.
Analytical results reflect the quality of the sample at the time of analysis only.
Opinions and Interpretations expressed are outside our scope of accreditation.
The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client.
A deviating sample report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

**Key**

| | |
|---|---|
| Superscript "#" | Accredited to ISO 17025 |
| Superscript "M" | Accredited to MCertS |
| Superscript "U" | Individual result not accredited |
| None of the above symbols | Analysis unaccredited |
| Subscript "A" | Analysis performed on as-received Sample |
| Subscript "D" | Analysis performed on the dried sample, crushed to pass 2mm sieve. |
| Subscript "^" | Analysis has dependant options against results. Details appear in the comments of your Sample receipt |
| IS | Insufficient Sample for analysis |
| US | Unsuitable Sample for analysis |
| NDP | No Determination Possible |
| NAD | No Asbestos Detected |
| N/A | Not applicable |

**Asbestos**
Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis
Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing, and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

**Assigned Matrix Codes**

| | | | | | |
|---|---|---|---|---|---|
| 1 | SAND | 6 | CLAY/LOAM | A | Contains Stones |
| 2 | LOAM | 7 | OTHER | B | Contains Construction Rubble |
| 3 | CLAY | 8 | Asbestos Bulk (Only Asbestos ID accredited) | C | Contains visible hydrocarbons |
| 4 | LOAM/SAND | 9 | Incinerator Ash (some Metals accredited) | D | Contains glass / metal |
| 5 | SAND/CLAY | | | E | Contains roots / twigs |
| **Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.** | | | | | |

**Soil Chemical Analysis:**
All results are reported as dry weight (<40°C).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

**TPH by method A-T-007:**
For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.
Results "with Clean up" indicates samples cleaned up with Silica during extraction.

**EPH CWG (method A-T-055) from TPH CWG:**
EPH CWG results have humics mathematically subtracted through instrument calculation.
Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

**Electrical Conductivity of water by method A-T-037:**
Results greater than 12900µS/cm @ 25ºC / 11550µS/cm @ 20ºC fall outside the accreditation range and as such are unaccredited.

Please contact your client manager if you require any further information.

# Envirolab Deviating Samples Report

Hattersley Science & Technology Park, Stockport Road, Hattersley, SK14 3QU
Tel. 0161 368 4921 email. ask@envlab.co.uk

**Client:** Geo2 Remediation Ltd, Coniston House,, Louisa Street, Bradford, BD10 8NE

**Project:** Reliance Street (RS)

**Clients Project No:** 1435

**Project No:** 24/04560

**Date Received:** 09/05/2024 (am)

**Cool Box Temperatures (°C):** 17.0

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

# Envirolab Analysis Dates

| Lab Sample ID | 24/04560/1 | 24/04560/2 | 24/04560/3 | 24/04560/4 | 24/04560/5 | 24/04560/6 | 24/04560/7 | 24/04560/8 | 24/04560/9 | 24/04560/10 | 24/04560/11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Client Sample No | | | | | | | | | | | |
| Client Sample ID/Depth | V8 2.50m | V3-1 0.50m | V3-2 0.50m | V4-1 1.50m | V4-2 2.00m | V4-3 1.50m | V4-4 1.50m | V4-5 2.50m | Crush-1 | Crush-2 | Crush-3 |
| Date Sampled | 08/05/24 | 07/05/24 | 08/05/24 | 08/05/24 | 08/05/24 | 08/05/24 | 08/05/24 | 08/05/24 | 07/05/24 | 07/05/24 | 07/05/24 |
| A-T-022s | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 |
| A-T-024s | | | | | | | | | 13/05/2024 | 14/05/2024 | 14/05/2024 |
| A-T-026s | | | | | | | | | 13/05/2024 | 13/05/2024 | 13/05/2024 |
| A-T-027s | | | | | | | | | 13/05/2024 | 13/05/2024 | 13/05/2024 |
| A-T-028s | | | | | | | | | 13/05/2024 | 14/05/2024 | 14/05/2024 |
| A-T-031s | | | | | | | | | 13/05/2024 | 13/05/2024 | 13/05/2024 |
| A-T-040s | | | | | | | | | 13/05/2024 | 13/05/2024 | 13/05/2024 |
| A-T-044 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 |
| A-T-045 | | | | | | | | | 10/05/2024 | 10/05/2024 | 10/05/2024 |
| A-T-054 | | | | | | | | | | 13/05/2024 | 13/05/2024 |
| A-T-055s | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 |
| Calc | | | | | | | | | 13/05/2024 | 13/05/2024 | 13/05/2024 |
| Calc-As Recd | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 | 13/05/2024 |

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

**End of Report**

envirolab
Hattersley Science & Technology Park
Stockport Road, Hattersley, SK14 3QU

# Final Test Report

| | | | |
|---|---|---|---|
| Envirolab Job Number: | 24/04421 | | |
| Issue Number: | 1 | Date: | 10-May-24 |

Client: Geo2 Remediation Ltd
Coniston House,
Louisa Street
Bradford
BD10 8NE

| | |
|---|---|
| Project Manager: | Peter Phillips |
| Project Name: | Reliance Street (RS) |
| Project Ref: | 1435 |
| Order No: | 1435/LAB/PP |
| Date Samples Received: | 2-May-24 |
| Date Instructions Received: | 3-May-24 |
| Date Analysis Completed: | 10-May-24 |

**Notes - Soil analysis**

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones >10mm are removed or excluded from the sample prior to analysis and reported results corrected to a whole sample basis.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis.

**Notes - General**

This report shall not be reproduced, except in full, without written approval from Envirolab.

Subscript "A" indicates analysis performed on the sample as received. "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve, unless asbestos is found to be present in which case all analysis is performed on the sample as received.

All analysis is performed on the dried and crushed sample for samples with Matrix Code 7 and this supercedes any "A" subscripts.

All analysis is performed on the sample as received for soil samples from outside the European Union and this supercedes any "D" subscripts

For complex, multi-compound analysis, quality control results do not always fall within chart limits for every compound and we have criteria for reporting in these situations.

If results are in italic font they are associated with such quality control failures and may be unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid

**Predominant Matrix Codes:** 1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample

**Secondary Matrix Codes:** A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

IS indicates Insufficient sample for analysis, NDP indicates No Determination Possible and NAD indicates No Asbestos Detected.

Analytical results reflect the quality of the sample at the time of analysis only. Opinions and interpretations expressed are outside the scope of our accreditation.

Please contact us if you need any further information.

**HWOL TPH Code:** EH_CU_1D_AL: Extractable hydrocarbons - i.e. everything extracted by the solvent(s), Clean-up - e.g. by florisil, silica gel, GC - Single coil gas chromatography, Aliphatics only

Approved by:

Richard Wong
Client Manager

envirolab

***Landfill WAC analysis must not be used for hazardous waste classification purposes. This analysis is only applicable for landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.***

| Sample Details | | | | | | | | Landfill Waste Acceptance Criteria Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample ID | Method | ISO17025 | MCERTS | 24/04421/11 | | | | | | |
| Client Sample Number | | | | | | | | Inert Waste Landfill | Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill | Hazardous Waste Landfill |
| Client Sample ID | | | | WAC-OT | | | | | | |
| Depth to Top | | | | | | | | | | |
| Depth to Bottom | | | | | | | | | | |
| Date Sampled | | | | 30/04/2024 | | | | | | |
| Sample Type | | | | Soil | | | | | | |
| Sample Matrix Code | | | | 4AE | | | | | | |
| **Solid Waste Analysis** | | | | | | | | | | |
| pH (pH Units)$_D$ | A-T-031 | N | N | **9.87** | | | | - | >6 | - |
| ANC to pH 4 (mol/kg)$_D$ | A-T-ANC | N | N | **0.36** | | | | - | to be evaluated | to be evaluated |
| ANC to pH 6 (mol/kg)$_D$ | A-T-ANC | N | N | **0.08** | | | | - | to be evaluated | to be evaluated |
| Loss on Ignition (%)$_D$ | A-T-030 | N | N | **NDP** | | | | - | - | 10 |
| Total Organic Carbon (%)$_D$ | A-T-032 | N | N | **5.21** | | | | 3 | 5 | 6 |
| PAH Sum of 17 (mg/kg) $_A$ | A-T-019 | N | N | **26.2** | | | | 100 | - | - |
| Mineral Oil (mg/kg)$_{A\ EH_CU_1D_AL}$ | A-T-007 | N | N | **13800** | | | | 500 | - | - |
| Sum of 7 PCBs (mg/kg)$_A$ | A-T-004 | N | N | **<0.350** | | | | 1 | - | - |
| Sum of BTEX (mg/kg)$_A$ | A-T-022 | N | N | **8.09** | | | | 6 | - | - |
| **Eluate Analysis** | | | | **2:1** | **8:1** | **2:1** | **Cumulative 10:1** | **Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)** | | |
| | | | | **mg/l** | | **mg/kg** | | | | |
| Arsenic | A-T-025 | N | N | 0.010 | 0.008 | 0.022 | **0.080** | 0.5 | 2 | 25 |
| Barium | A-T-025 | N | N | 0.039 | 0.031 | 0.085 | **0.320** | 20 | 100 | 300 |
| Cadmium | A-T-025 | N | N | <0.001 | <0.001 | <0.002 | **<0.01** | 0.04 | 1 | 5 |
| Chromium | A-T-025 | N | N | 0.008 | 0.003 | 0.017 | **0.040** | 0.5 | 10 | 70 |
| Copper | A-T-025 | N | N | 0.017 | 0.009 | 0.037 | **0.100** | 2 | 50 | 100 |
| Mercury | A-T-025 | N | N | <0.0005 | <0.0005 | <0.001 | **<0.005** | 0.01 | 0.2 | 2 |
| Molybdenum | A-T-025 | N | N | 0.008 | 0.002 | 0.017 | **0.030** | 0.5 | 10 | 30 |
| Nickel | A-T-025 | N | N | <0.002 | <0.002 | <0.004 | **<0.02** | 0.4 | 10 | 40 |
| Lead | A-T-025 | N | N | 0.013 | 0.019 | 0.028 | **0.190** | 0.5 | 10 | 50 |
| Antimony | A-T-025 | N | N | 0.005 | 0.002 | 0.011 | **0.020** | 0.06 | 0.7 | 5 |
| Selenium | A-T-025 | N | N | <0.001 | <0.001 | <0.002 | **<0.01** | 0.1 | 0.5 | 7 |
| Zinc | A-T-025 | N | N | 0.007 | 0.010 | 0.015 | **0.100** | 4 | 50 | 200 |
| Chloride | A-T-026 | N | N | 2 | <1.00 | 4 | **<10** | 800 | 15000 | 25000 |
| Fluoride | A-T-026 | N | N | 0.6 | 0.2 | 1.2 | **2.0** | 10 | 150 | 500 |
| Sulphate as $SO_4$ | A-T-026 | N | N | 30 | 3 | 66 | **65** | 1000 | 20000 | 50000 |
| Total Dissolved Solids | A-T-035 | N | N | 82 | 37 | 179 | **428** | 4000 | 60000 | 100000 |
| Phenol Index | A-T-050 | N | N | <0.02 | <0.02 | <0.02 | **<0.1** | 1 | - | - |
| Dissolved Organic Carbon | A-T-032 | N | N | <20.0 | <20.0 | <40 | **<200** | 500 | 800 | 1000 |
| **Leach Test Information** | | | | | | | | | | |
| pH (pH Units) | A-T-031 | N | N | 8.7 | 9.3 | | | | | |
| Conductivity (µS/cm) | A-T-037 | N | N | 163 | 75 | | | | | |
| | | | | | | | | | | |
| Mass Sample (kg) | | | | 0.207 | | | | | | |
| Dry Matter (%) | A-T-044 | N | N | 84.4 | | | | | | |
| **Stage 1** | | | | | | | | | | |
| Volume Leachant, $L_2$ (l) | A-T-046 | | | 0.350 | | | | | | |
| Filtered Eluate Volume, $VE_1$ (l) | A-T-046 | | | 0.200 | | | | | | |
| **Stage 2** | | | | | | | | | | |
| Volume Leachant, $L_8$ (l) | A-T-046 | | | 1.400 | | | | | | |

Stated acceptance limits are for guidance only and Envirolab cannot be held responsible for any discrepancies with current legislation

# Appendix C – Geotechnical

Environmental
Geotechnical
Specialists

# LABORATORY REPORT

| | |
|---|---|
| job number | C/4303/24/L/6572 |
| date | 07/05/2024 |
| site address | Oldham Road<br>Failsworth,<br>Manchester,<br>M40 1EZ |
| date scheduled | 07/05/2024 |
| date issued | 07/05/2024 |
| issued by | H J Letch |

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# Schedule of UKAS Accredited Laboratory Tests

RGS

| 1. CLASSIFICATION OF SOIL | BS 1377-2:1990 | BS EN ISO 17892 | Accredited (A) | Unaccredited (U) |
|---|---|---|---|---|
| **1.1 Moisture / Water content determination** | | | | |
| i. Oven drying | Pt 2 : 3.2 | Pt 1 : 2014 Pt 12 : 2018 : 5.3 / 5.5 | A | |
| ii. Saturation m/c of chalk | Pt 2 : 3.3 | | | U |
| **1.2 Index Properties** | | | | |
| i. Liquid limit – cone penetrometer | Pt 2 : 4.3 | | A | |
| ii. Plastic limit | Pt 2 : 5.3 | | A | |
| iii. Shrinkage limit | Pt 2 : 6.3 | | | U |
| iv. Linear shrinkage | Pt 2 : 6.5 | | A | |
| **1.3 Particle Density** | | | | |
| i. Gas jar | Pt 2 : 8.2 | | A | |
| ii. Large pyknometer | Pt 2 : 8.3 | | | U |
| iii. Small pyknometer | Pt 2 : 8.4 | Pt 3 : 2015 : 5.1 | | U |
| **1.4 Density Tests** | | | | |
| i. Linear measurement | Pt 2 : 7.2 | Pt 2 : 2014 : 5.1 | A | |
| ii. Immersion in water | Pt 2 : 7.3 | Pt 2 : 2014 : 5.2 | | U |
| iii. Fluid / Water displacement | Pt 2 : 7.4 | Pt 2 : 2014 : 5.3 | | U |
| iv. Sand replacement | Pt 9 : 2.1, 2.2 | | | U |
| v. Core cutter | Pt 9 : 2.4 | | | U |
| **1.5 Particle Size Distribution** | | | | |
| i. Dry Sieve | Pt 2 : 9.2 | Pt 4 : 2016 : 5.2 | A | |
| ii. Wet Sieve | Pt 2 : 9.3 | Pt 4 : 2016 : 5.2 | A | |
| iii. Sedimentation by pipette | Pt 2 : 9.4 | Pt 4 : 2016 : 5.3 / 5.4 | A | |
| iv. Sedimentation by hydrometer | Pt 2 : 9.5 | | | U |
| **2. CHEMICAL TESTS** | **BS 1377-3:2018** | | | |
| ii. Mass loss on ignition | Pt 3 : 4 | | | U |
| **3. COMPACTION RELATED TESTS** | **BS 1377-4:1990** | | | |
| **3.1 Dry density/moisture relationship** | | | | |
| i. 2.5kg rammer – 1 litre mould | Pt 4 : 3 | | A | |
| - CBR mould | Pt 4 : 3 | | A | |
| ii. 4.5kg rammer – 1 litre mould | Pt 4 : 3 | | A | |
| - CBR mould | Pt 4 : 3 | | A | |
| **3.2 Moisture Condition Value** | | | | |
| i. Single point test | Pt 4 : 5.4 | | | U |
| ii. MCV/moisture content relationship | Pt 4 : 5.5 | | | U |
| **3.3 California Bearing Ratio** | | | | |
| i. Undisturbed sample | Pt 5 : 7 | | A | |
| ii. Recompacted sample | Pt 5 : 7 | | A | |
| iii. Soaked, inc measurement of swell | Pt 5 : 7 | | A | |
| **4. COMPRESSIBILITY OF SOIL** | **BS 1377-5:1990** | | | |
| i. One dimensional consolidation | Pt 5 : 3 | | A | |
| ii. Swelling pressure test | Pt 5 : 3 | | | U |
| **5. SHEAR STRENGTH OF SOIL** | **BS 1377-7:1990** | | | |
| i. Hand shear vane | Makers instructions | | | U |
| ii. Shear box (100mm square sample) | BS 1377 : Pt 7 : 4 | | | U |
| iii. Triaxial – quick undrained | BS 1377 : Pt 7 : 8, 9 | | A | |
| **6. PERMEABILITY** | | | | |
| i. Falling head | K. H. Head Vol 2 | | | U |
| ii. Constant head | BS 1377 : Pt 6 : 6 | | | U |
| iii Triaxial cell | BS 1377 : Pt 6 : 6 | | | U |
| **7. ROCK TESTS** | | | | |
| **7.1 Classification Tests** | | | | |
| i. Natural moisture content | - | | | U |
| ii. Saturated moisture content | - | | | U |
| iii. Natural density | - | | | U |
| iv. Porosity | - | | | U |
| **7.2 Strength Tests** | | | | |
| i. Point load index | ISRM '85 | | | U |
| ii. Uniaxial compression test | ISRM '81 | | | U |

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# Disclaimer

The results reported herein relate only to the material supplied to the laboratory.

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RGS Environmental Geotechnical Specialists

Rogers Geotechnical Services Ltd
Offices 1 & 2 Barncliffe Business Park, Near Bank, Shelley, Huddersfield, HD8 8LU
01484 604354 Company No. 5130864

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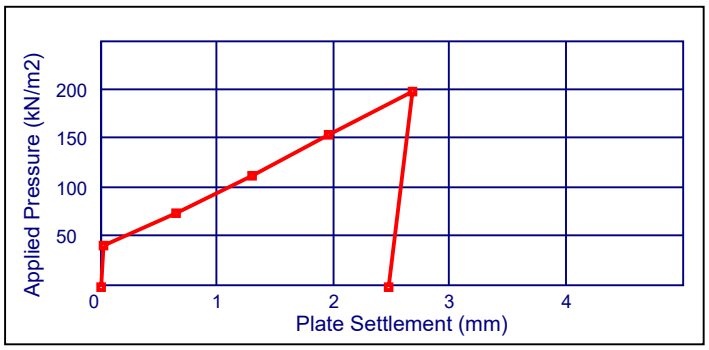
**Rogers Geotechnical Services**
Unit 4 Barncliffe Business Park , Shelley
Huddersfiled, HD88LU
Tel. 01484607977

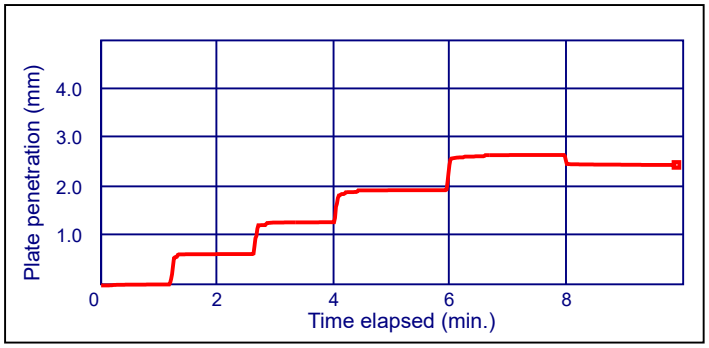
# TEST REPORT
# PLATE LOADING TEST

| | | | |
|---|---|---|---|
| **Project** | Reliance Street | **Test No:** | 1 |
| **Client** | Geo2 | **Lab Ref No:** | C/4303/24/L/6572 |
| | | **Date Reported** | 07.05.24 |
| | | **Weather Conditions** | Dry |
| **Technician** | HJL/MT | **Air Temperature °C** | 16 |

| | | | |
|---|---|---|---|
| **Date Tested** | 07.05.24 | **Plate Dia (mm)** | 450 |
| **Location** | 1 | | |
| **GPS Coord's** | W 2° 10' 52.8", N 53° 30' 11.6" | **Depth (m)** | 0 |
| **Material Type** | 6F2 | **Reaction Type** | 14t |
| **No Cycles** | 1 | **App Weight (kg)** | 40 |




| Plate Settlement (mm) | Applied Pressure (kN/m2) |
|---|---|
| 0.00 | 0.0 |
| 0.02 | 42.6 |
| 0.64 | 75.8 |
| 1.30 | 114.1 |
| 1.95 | 156.1 |
| 2.67 | 200.5 |
| 2.47 | 0.0 |




| | Cycle 1 |
|---|---|
| **Maximum Applied Pressure (kPa):** | **203** |
| **Maximum deformation (mm):** | **2.67** |
| **Modulus of subgrade reaction K (MN/m3):** | **89.1** |
| **K762 (MN/m3):** | **55.5** |
| **Estimated CBR (%):** | **10** |

**Comments:**

**Approved Signature**
**Rogers Geotechnical Services**
Mr H J Letch
Technical Laboratory Manager

Plate Load - Tested in accordance with BS 1377 : Part 9 C
Moisture Content - Tested in accordance with BS 1377 : P
*Opinions and interpolations expressed herein are outside the scope of UKAS acceditation*

**Rogers Geotechnical Services**
Unit 4 Barncliffe Business Park , Shelley
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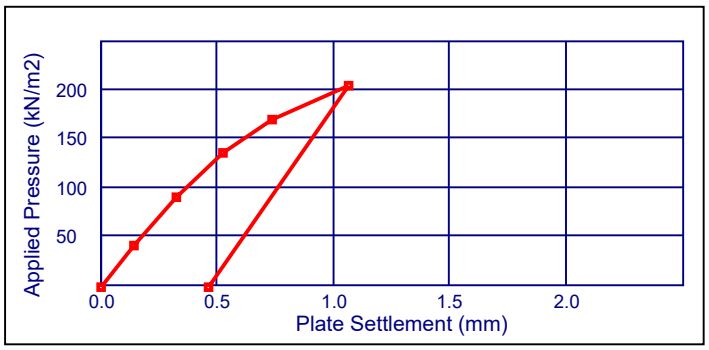
Tel. 01484607977

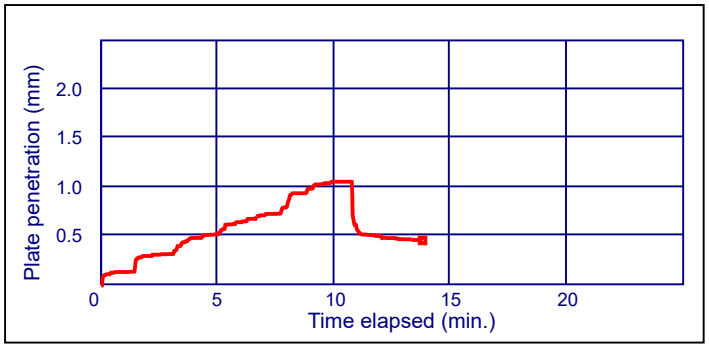
# TEST REPORT
# PLATE LOADING TEST

| | | | |
|---|---|---|---|
| **Project** | Reliance Street | **Test No:** | 2 |
| **Client** | Geo2 | **Lab Ref No:** | C/4303/24/L/6572 |
| | | **Date Reported** | 07.05.24 |
| | | **Weather Conditions** | Dry |
| **Technician** | HJL/MT | **Air Temperature °C** | 16 |

| | | | |
|---|---|---|---|
| **Date Tested** | 07.05.24 | **Plate Dia (mm)** | 450 |
| **Location** | 2 | | |
| **GPS Coord's** | W 2° 10' 53.0", N 53° 30' 11.3" | **Depth (m)** | 0 |
| **Material Type** | 6F2 | **Reaction Type** | 14t |
| **No Cycles** | 1 | **App Weight (kg)** | 40 |




| Plate Settlement (mm) | Applied Pressure (kN/m2) |
|---|---|
| 0.00 | 0.0 |
| 0.14 | 42.7 |
| 0.32 | 92.1 |
| 0.52 | 137.6 |
| 0.73 | 171.7 |
| 1.06 | 206.5 |
| 0.46 | 0.0 |




| | Cycle 1 |
|---|---|
| **Maximum Applied Pressure (kPa):** | **209** |
| **Maximum deformation (mm):** | **1.06** |
| **Modulus of subgrade reaction K (MN/m3):** | **181.1** |
| **K762 (MN/m3):** | **112.8** |
| **Estimated CBR (%):** | **35** |

**Comments:**

**Approved Signature**
**Rogers Geotechnical Services**
Mr H J Letch
Technical Laboratory Manager

Plate Load - Tested in accordance with BS 1377 : Part 9 C
Moisture Content - Tested in accordance with BS 1377 : P
*Opinions and interpolations expressed herein are outside the scope of UKAS acceditation*

**Rogers Geotechnical Services**
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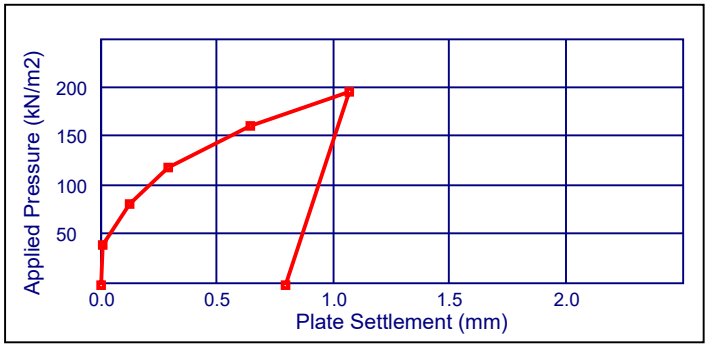
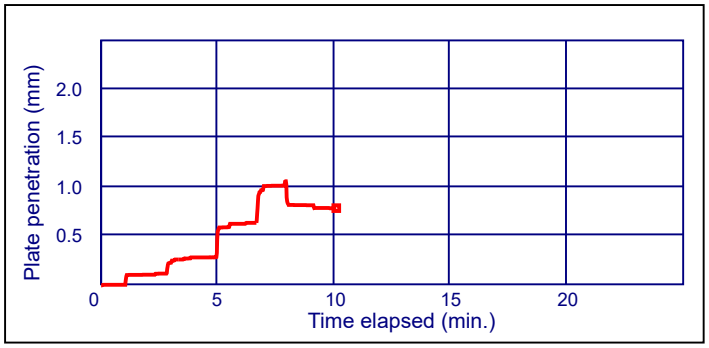
# TEST REPORT
# PLATE LOADING TEST

| | | | |
|---|---|---|---|
| **Project** | Reliance Street | **Test No:** | 3 |
| **Client** | Geo2 | **Lab Ref No:** | C/4303/24/L/6572 |
| | | **Date Reported** | 07.05.24 |
| | | **Weather Conditions** | Dry |
| **Technician** | HJL/MT | **Air Temperature °C** | 16 |

| | | | |
|---|---|---|---|
| **Date Tested** | 07.05.24 | **Plate Dia (mm)** | 450 |
| **Location** | 3 | | |
| **GPS Coord's** | W 2° 10' 53.8", N 53° 30' 11.4" | **Depth (m)** | 0 |
| **Material Type** | 6F2 | **Reaction Type** | 14t |
| **No Cycles** | 1 | **App Weight (kg)** | 40 |




| Plate Settlement (mm) | Applied Pressure (kN/m2) |
|---|---|
| 0.00 | 0.0 |
| 0.01 | 41.2 |
| 0.12 | 83.1 |
| 0.29 | 120.6 |
| 0.64 | 163.2 |
| 1.07 | 198.1 |
| 0.79 | 0.0 |




| | Cycle 1 |
|---|---|
| **Maximum Applied Pressure (kPa):** | **201** |
| **Maximum deformation (mm):** | **1.07** |
| **Modulus of subgrade reaction K (MN/m3):** | **170.6** |
| **K762 (MN/m3):** | **106.3** |
| **Estimated CBR (%):** | **31** |

**Comments:**

**Approved Signature**
**Rogers Geotechnical Services**
Mr H J Letch
Technical Laboratory Manager

Plate Load - Tested in accordance with BS 1377 : Part 9 C
Moisture Content - Tested in accordance with BS 1377 : P
*Opinions and interpolations expressed herein are outside the scope of UKAS acceditation*

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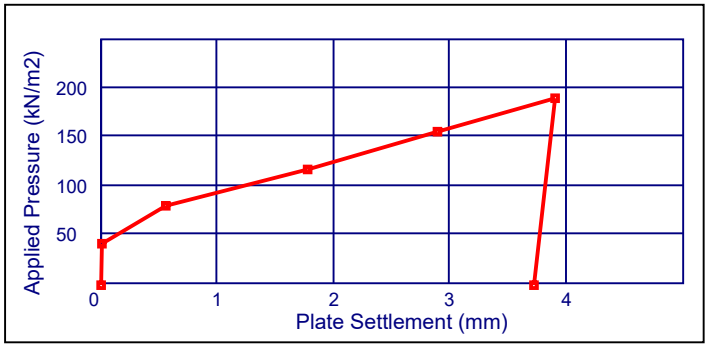
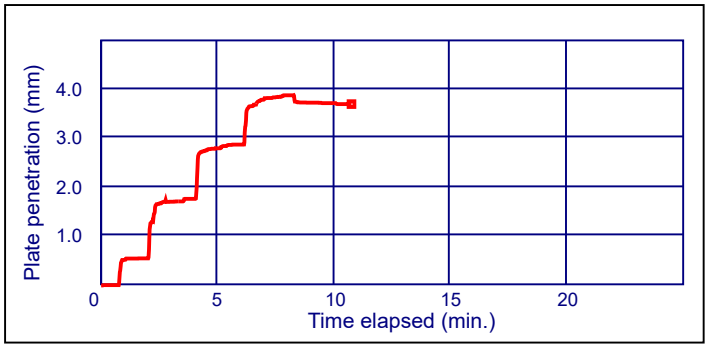
# TEST REPORT
# PLATE LOADING TEST

| | | | |
|---|---|---|---|
| **Project** | Reliance Street | **Test No:** | 4 |
| **Client** | Geo2 | **Lab Ref No:** | C/4303/24/L/6572 |
| | | **Date Reported** | 07.05.24 |
| | | **Weather Conditions** | Dry |
| **Technician** | HJL/MT | **Air Temperature °C** | 16 |

| | | | |
|---|---|---|---|
| **Date Tested** | 07.05.24 | **Plate Dia (mm)** | 450 |
| **Location** | 4 | | |
| **GPS Coord's** | W 2° 10' 53.3", N 53° 30' 11.4" | **Depth (m)** | 0 |
| **Material Type** | 6F2 | **Reaction Type** | 14t |
| **No Cycles** | 1 | **App Weight (kg)** | 40 |




| Plate Settlement (mm) | Applied Pressure (kN/m2) |
|---|---|
| 0.00 | 0.0 |
| 0.01 | 42.4 |
| 0.55 | 81.3 |
| 1.77 | 118.5 |
| 2.89 | 157.3 |
| 3.90 | 191.6 |
| 3.72 | 0.0 |




| | Cycle 1 |
|---|---|
| **Maximum Applied Pressure (kPa):** | **194** |
| **Maximum deformation (mm):** | **3.90** |
| **Modulus of subgrade reaction K (MN/m3):** | **82.0** |
| **K762 (MN/m3):** | **51.1** |
| **Estimated CBR (%):** | **8.8** |

**Comments:**

**Approved Signature**
**Rogers Geotechnical Services**
Mr H J Letch
Technical Laboratory Manager

Plate Load - Tested in accordance with BS 1377 : Part 9 C
Moisture Content - Tested in accordance with BS 1377 : P
*Opinions and interpolations expressed herein are outside the scope of UKAS acceditation*

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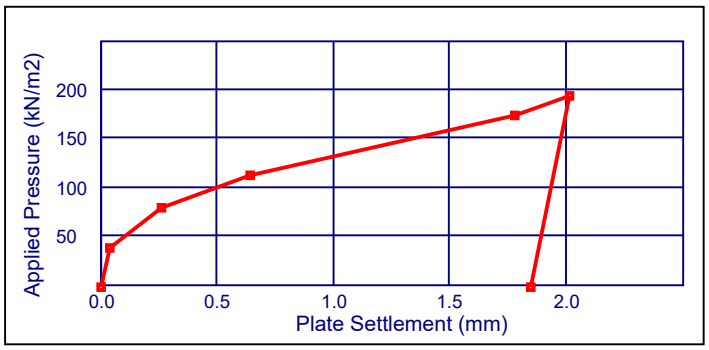
Unit 4 Barncliffe Business Park , Shelley
Huddersfiled, HD88LU
Tel. 01484607977

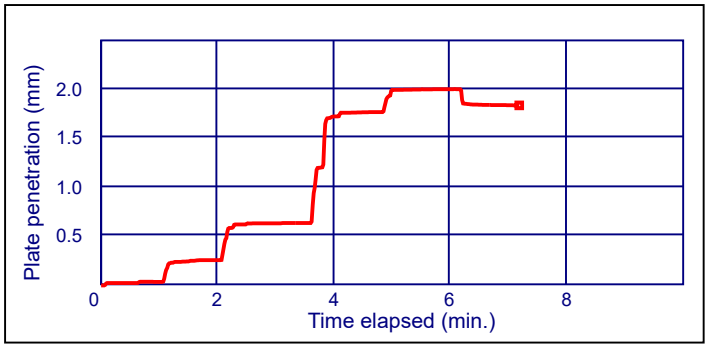
# TEST REPORT
# PLATE LOADING TEST

| | | | |
|---|---|---|---|
| **Project** | Reliance Street | **Test No:** | 5 |
| **Client** | Geo2 | **Lab Ref No:** | C/4303/24/L/6572 |
| | | **Date Reported** | 07.05.24 |
| | | **Weather Conditions** | Dry |
| **Technician** | HJL/MT | **Air Temperature °C** | 16 |

| | | | |
|---|---|---|---|
| **Date Tested** | 07.05.24 | **Plate Dia (mm)** | 450 |
| **Location** | 5 | | |
| **GPS Coord's** | W 2° 10' 53.1", N 53° 30' 11.7" | **Depth (m)** | 0 |
| **Material Type** | 6F2 | **Reaction Type** | 14t |
| **No Cycles** | 1 | **App Weight (kg)** | 40 |




| Plate Settlement (mm) | Applied Pressure (kN/m2) |
|---|---|
| 0.00 | 0.0 |
| 0.04 | 40.2 |
| 0.26 | 81.4 |
| 0.64 | 114.7 |
| 1.78 | 176.0 |
| 2.01 | 196.1 |
| 1.85 | 0.0 |




| | Cycle 1 |
|---|---|
| **Maximum Applied Pressure (kPa):** | **199** |
| **Maximum deformation (mm):** | **2.01** |
| **Modulus of subgrade reaction K (MN/m3):** | **118.1** |
| **K762 (MN/m3):** | **73.6** |
| **Estimated CBR (%):** | **17** |

**Comments:**

**Approved Signature**
**Rogers Geotechnical Services**
Mr H J Letch
Technical Laboratory Manager

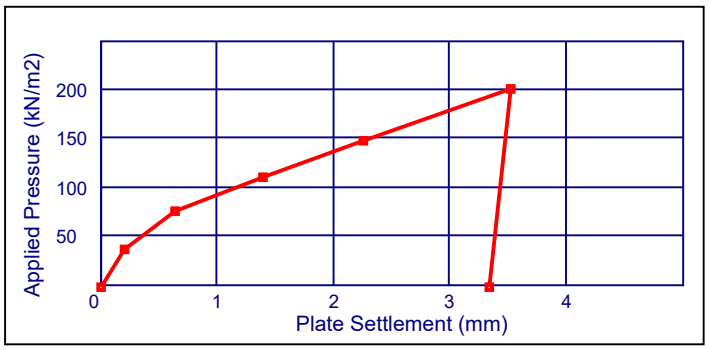
Plate Load - Tested in accordance with BS 1377 : Part 9 C
Moisture Content - Tested in accordance with BS 1377 : P
*Opinions and interpolations expressed herein are outside the scope of UKAS acceditation*

**Rogers Geotechnical Services**
Unit 4 Barncliffe Business Park , Shelley
Huddersfiled, HD88LU
Tel. 01484607977

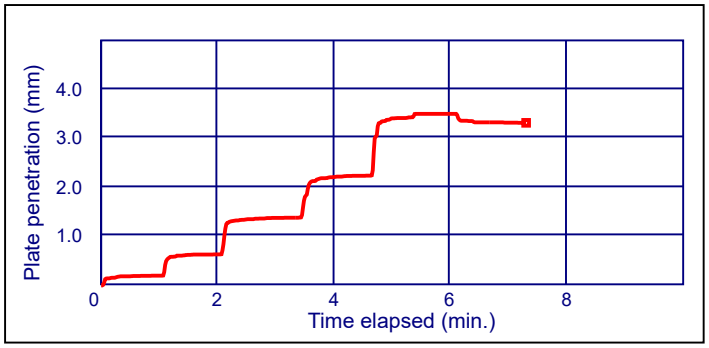
# TEST REPORT
# PLATE LOADING TEST

| | | | |
|---|---|---|---|
| **Project** | Reliance Street | **Test No:** | 6 |
| **Client** | Geo2 | **Lab Ref No:** | C/4303/24/L/6572 |
| | | **Date Reported** | 07.05.24 |
| | | **Weather Conditions** | Dry |
| **Technician** | HJL/MT | **Air Temperature °C** | 16 |

| | | | |
|---|---|---|---|
| **Date Tested** | 07.05.24 | **Plate Dia (mm)** | 450 |
| **Location** | 6 | | |
| **GPS Coord's** | W 2° 10' 53.3", N 53° 30' 11.3" | **Depth (m)** | 0 |
| **Material Type** | 6F2 | **Reaction Type** | 14t |
| **No Cycles** | 1 | **App Weight (kg)** | 40 |




| Plate Settlement (mm) | Applied Pressure (kN/m2) |
|---|---|
| 0.00 | 0.0 |
| 0.20 | 38.7 |
| 0.64 | 78.0 |
| 1.39 | 112.7 |
| 2.25 | 150.0 |
| 3.52 | 203.2 |
| 3.33 | 0.0 |




| | Cycle 1 |
|---|---|
| **Maximum Applied Pressure (kPa):** | **206** |
| **Maximum deformation (mm):** | **3.52** |
| **Modulus of subgrade reaction K (MN/m3):** | **85.0** |
| **K762 (MN/m3):** | **53.0** |
| **Estimated CBR (%):** | **9.4** |

**Comments:**

**Approved Signature**
**Rogers Geotechnical Services**
Mr H J Letch
Technical Laboratory Manager

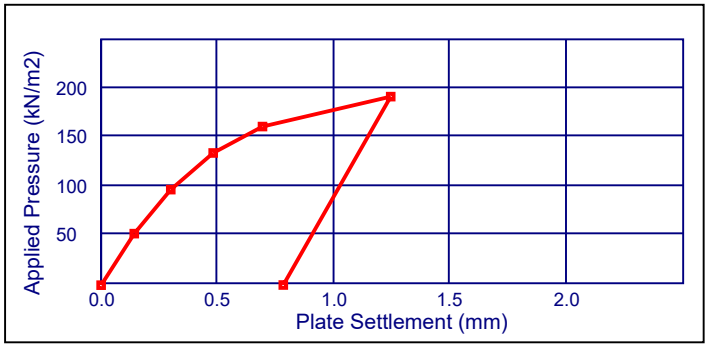
Plate Load - Tested in accordance with BS 1377 : Part 9 C
Moisture Content - Tested in accordance with BS 1377 : P
*Opinions and interpolations expressed herein are outside the scope of UKAS acceditation*

**Rogers Geotechnical Services**
Unit 4 Barncliffe Business Park , Shelley
Huddersfiled, HD88LU
Tel. 01484607977

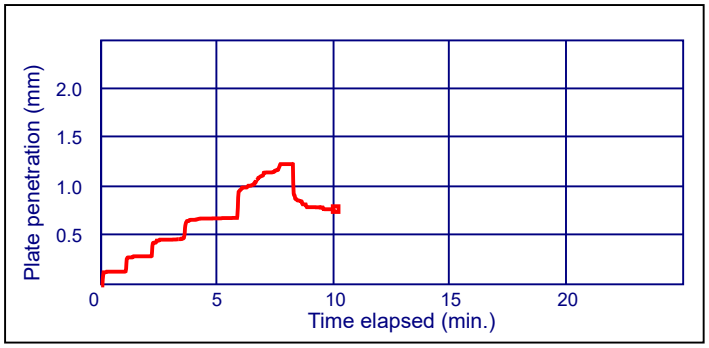
# TEST REPORT
# PLATE LOADING TEST

| | | | |
|---|---|---|---|
| **Project** | Reliance Street | **Test No:** | 7 |
| **Client** | Geo2 | **Lab Ref No:** | C/4303/24/L/6572 |
| | | **Date Reported** | 07.05.24 |
| | | **Weather Conditions** | Dry |
| **Technician** | HJL/MT | **Air Temperature °C** | 16 |

| | | | |
|---|---|---|---|
| **Date Tested** | 07.05.24 | **Plate Dia (mm)** | 450 |
| **Location** | 7 | | |
| **GPS Coord's** | W 2° 10' 52.7", N 53° 30' 11.6" | **Depth (m)** | 0 |
| **Material Type** | 6F2 | **Reaction Type** | 14t |
| **No Cycles** | 1 | **App Weight (kg)** | 40 |




| Plate Settlement (mm) | Applied Pressure (kN/m2) |
|---|---|
| 0.00 | 0.0 |
| 0.14 | 52.9 |
| 0.30 | 97.9 |
| 0.48 | 135.4 |
| 0.69 | 162.5 |
| 1.24 | 193.3 |
| 0.78 | 0.2 |




| | Cycle 1 |
|---|---|
| **Maximum Applied Pressure (kPa):** | **196** |
| **Maximum deformation (mm):** | **1.24** |
| **Modulus of subgrade reaction K (MN/m3):** | **154.9** |
| **K762 (MN/m3):** | **96.5** |
| **Estimated CBR (%):** | **27** |

**Comments:**

**Approved Signature**
**Rogers Geotechnical Services**
Mr H J Letch
Technical Laboratory Manager

Plate Load - Tested in accordance with BS 1377 : Part 9 C
Moisture Content - Tested in accordance with BS 1377 : P
*Opinions and interpolations expressed herein are outside the scope of UKAS acceditation*

End of Report

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RGS Environmental Geotechnical Specialists
Rogers Geotechnical Services Ltd
Offices 1 & 2 Barncliffe Business Park, Near Bank, Shelley, Huddersfield, HD8 8LU
01484 604354 Company No. 5130864

Environmental
Geotechnical
Specialists

# LABORATORY REPORT

| | |
|---|---|
| job number | C/4303/24/L/6572 |
| date | 07/05/2024 |
| site address | Oldham Road<br>Failsworth,<br>Manchester,<br>M40 1EZ |
| date scheduled | 07/05/2024 |
| date issued | 07/05/2024 |
| issued by | H J Letch |

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8948

# Schedule of UKAS Accredited Laboratory Tests

RGS

| 1. CLASSIFICATION OF SOIL | BS 1377-2:1990 | BS EN ISO 17892 | Accredited (A) | Unaccredited (U) |
|---|---|---|---|---|
| **1.1 Moisture / Water content determination** | | | | |
| i. Oven drying | Pt 2 : 3.2 | Pt 1 : 2014 Pt 12 : 2018 : 5.3 / 5.5 | A | |
| ii. Saturation m/c of chalk | Pt 2 : 3.3 | | | U |
| **1.2 Index Properties** | | | | |
| i. Liquid limit – cone penetrometer | Pt 2 : 4.3 | | A | |
| ii. Plastic limit | Pt 2 : 5.3 | | A | |
| iii. Shrinkage limit | Pt 2 : 6.3 | | | U |
| iv. Linear shrinkage | Pt 2 : 6.5 | | A | |
| **1.3 Particle Density** | | | | |
| i. Gas jar | Pt 2 : 8.2 | | A | |
| ii. Large pyknometer | Pt 2 : 8.3 | | | U |
| iii. Small pyknometer | Pt 2 : 8.4 | Pt 3 : 2015 : 5.1 | | U |
| **1.4 Density Tests** | | | | |
| i. Linear measurement | Pt 2 : 7.2 | Pt 2 : 2014 : 5.1 | A | |
| ii. Immersion in water | Pt 2 : 7.3 | Pt 2 : 2014 : 5.2 | | U |
| iii. Fluid / Water displacement | Pt 2 : 7.4 | Pt 2 : 2014 : 5.3 | | U |
| iv. Sand replacement | Pt 9 : 2.1, 2.2 | | | U |
| v. Core cutter | Pt 9 : 2.4 | | | U |
| **1.5 Particle Size Distribution** | | | | |
| i. Dry Sieve | Pt 2 : 9.2 | Pt 4 : 2016 : 5.2 | A | |
| ii. Wet Sieve | Pt 2 : 9.3 | Pt 4 : 2016 : 5.2 | A | |
| iii. Sedimentation by pipette | Pt 2 : 9.4 | Pt 4 : 2016 : 5.3 / 5.4 | A | |
| iv. Sedimentation by hydrometer | Pt 2 : 9.5 | | | U |
| **2. CHEMICAL TESTS** | **BS 1377-3:2018** | | | |
| ii. Mass loss on ignition | Pt 3 : 4 | | | U |
| **3. COMPACTION RELATED TESTS** | **BS 1377-4:1990** | | | |
| **3.1 Dry density/moisture relationship** | | | | |
| i. 2.5kg rammer – 1 litre mould | Pt 4 : 3 | | A | |
| - CBR mould | Pt 4 : 3 | | A | |
| ii. 4.5kg rammer – 1 litre mould | Pt 4 : 3 | | A | |
| - CBR mould | Pt 4 : 3 | | A | |
| **3.2 Moisture Condition Value** | | | | |
| i. Single point test | Pt 4 : 5.4 | | | U |
| ii. MCV/moisture content relationship | Pt 4 : 5.5 | | | U |
| **3.3 California Bearing Ratio** | | | | |
| i. Undisturbed sample | Pt 5 : 7 | | A | |
| ii. Recompacted sample | Pt 5 : 7 | | A | |
| iii. Soaked, inc measurement of swell | Pt 5 : 7 | | A | |
| **4. COMPRESSIBILITY OF SOIL** | **BS 1377-5:1990** | | | |
| i. One dimensional consolidation | Pt 5 : 3 | | A | |
| ii. Swelling pressure test | Pt 5 : 3 | | | U |
| **5. SHEAR STRENGTH OF SOIL** | **BS 1377-7:1990** | | | |
| i. Hand shear vane | Makers instructions | | | U |
| ii. Shear box (100mm square sample) | BS 1377 : Pt 7 : 4 | | | U |
| iii. Triaxial – quick undrained | BS 1377 : Pt 7 : 8, 9 | | A | |
| **6. PERMEABILITY** | | | | |
| i. Falling head | K. H. Head Vol 2 | | | U |
| ii. Constant head | BS 1377 : Pt 6 : 6 | | | U |
| iii Triaxial cell | BS 1377 : Pt 6 : 6 | | | U |
| **7. ROCK TESTS** | | | | |
| **7.1 Classification Tests** | | | | |
| i. Natural moisture content | - | | | U |
| ii. Saturated moisture content | - | | | U |
| iii. Natural density | - | | | U |
| iv. Porosity | - | | | U |
| **7.2 Strength Tests** | | | | |
| i. Point load index | ISRM '85 | | | U |
| ii. Uniaxial compression test | ISRM '81 | | | U |

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# Disclaimer

The results reported herein relate only to the material supplied to the laboratory.

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# GEOTECHNICAL TESTING RESULTS

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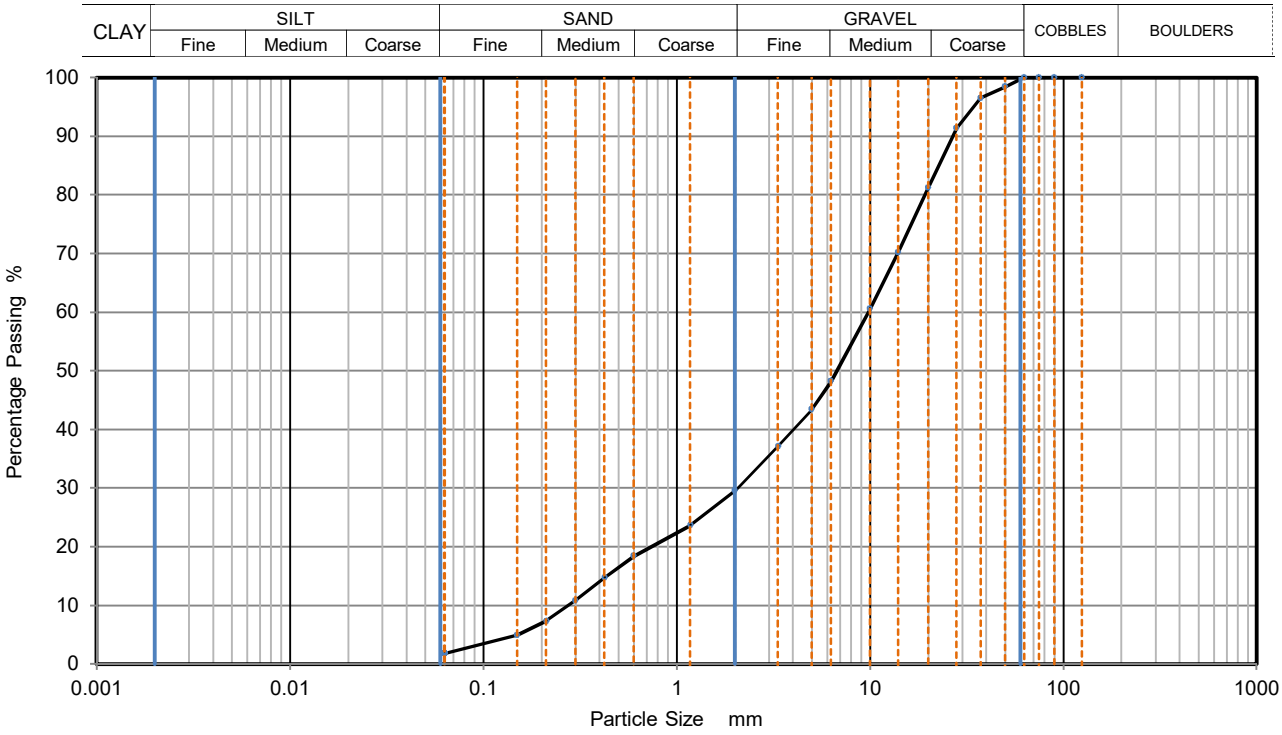
| | | | | | |
|---|---|---|---|---|---|
| RGS | **PARTICLE SIZE DISTRIBUTION** | | | Job Ref | **C/4303/24/L/6665** |
| | | | | Borehole/Pit No. | Sample 1 |
| Site Name | Reliance Street and Oldham Road | | | Sample No. | 1 |
| Soil Description | Grey sandy GRAVEL. | | | Depth, m | 0.00 |
| Specimen Reference | 1 | Specimen Depth | 0 m | Sample Type | B |
| Test Method | ISO 17892 -4, by sieving on pre-dried or dry sample | | | KeyLAB ID | RGS_202405100 |




| Sieving | | Sedimentation | |
|---|---|---|---|
| Particle Size mm | % Passing | Particle Size mm | % Passing |
| 125 | 100 | | |
| 90 | 100 | | |
| 75 | 100 | | |
| 63 | 100 | | |
| 50 | 98 | | |
| 37.5 | 97 | | |
| 28 | 91 | | |
| 20 | 81 | | |
| 14 | 70 | | |
| 10 | 61 | | |
| 6.3 | 48 | | |
| 5 | 43 | | |
| 3.35 | 37 | | |
| 2 | 30 | | |
| 1.18 | 24 | | |
| 0.6 | 18 | | |
| 0.425 | 15 | | |
| 0.3 | 11 | | |
| 0.212 | 7 | | |
| 0.15 | 5 | | |
| 0.063 | 2 | | |

| Dry Mass of sample, g | 11165 |
|---|---|

| **Sample Proportions** | % dry mass |
|---|---|
| Very coarse | 0 |
| Gravel | 70 |
| Sand | 28 |
| | |
| Fines <0.063mm | 2 |

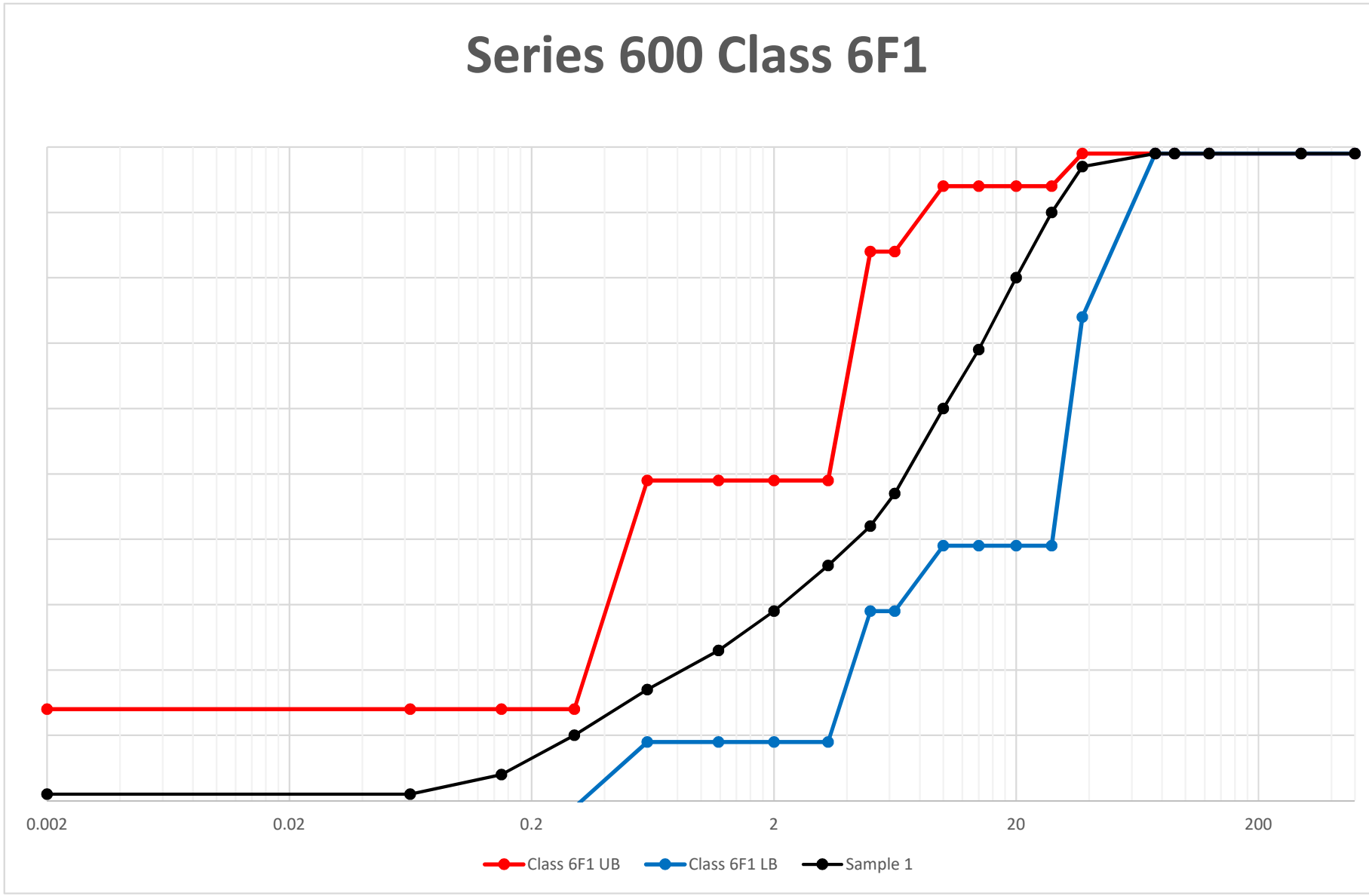
| **Grading Analysis** | | |
|---|---|---|
| $D_{100}$ | mm | 63 |
| $D_{60}$ | mm | 9.82 |
| $D_{30}$ | mm | 2.08 |
| $D_{10}$ | mm | 0.277 |

Remarks

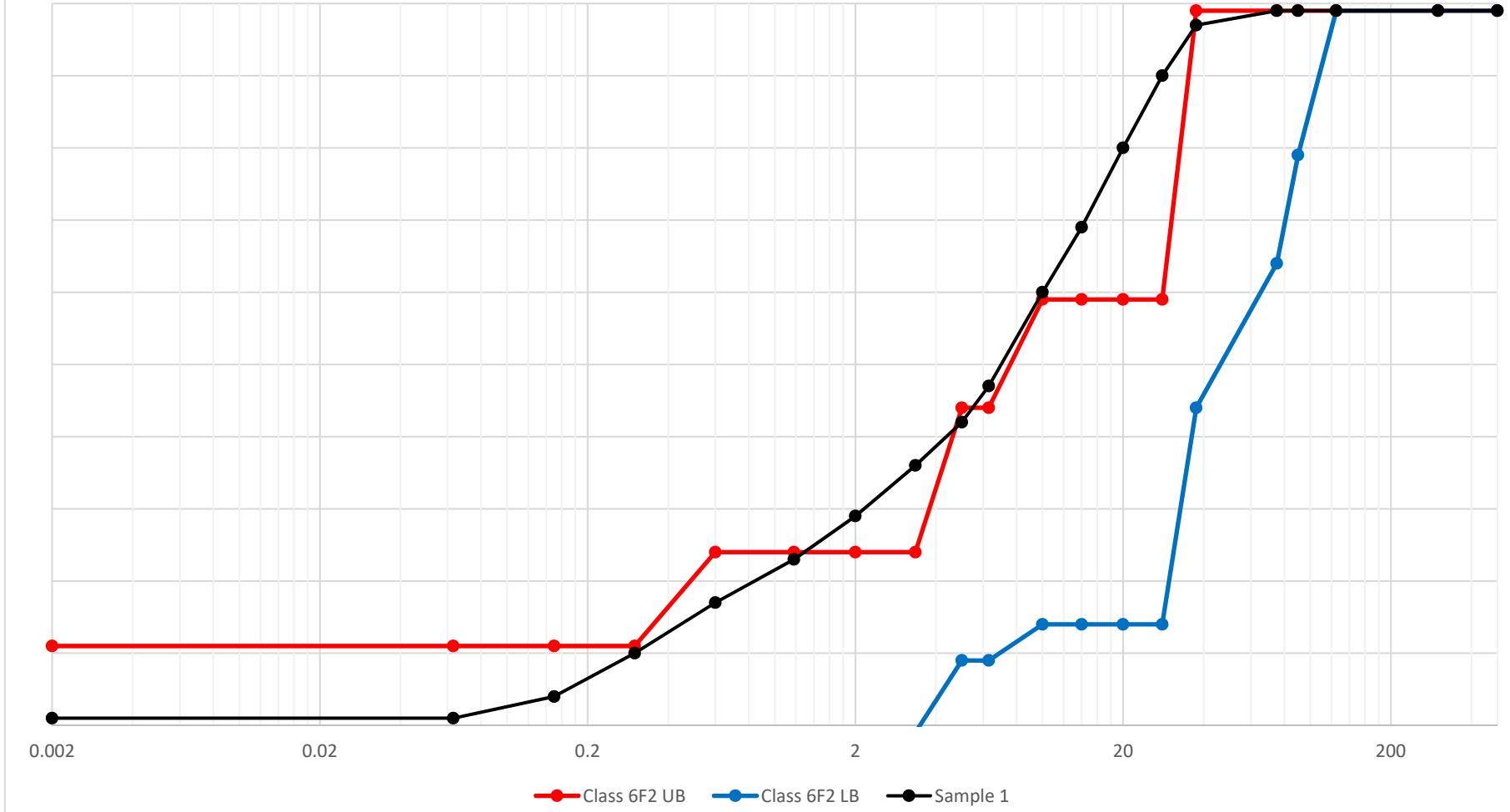
Preparation and testing in accordance with BS EN ISO 17892 - 4, unless noted below

Test performance date: 10/05/2024

| Operator | Checked | Approved | Sheet printed | Fig 1 |
|---|---|---|---|---|
| Harry | Harry | Harry | 10/05/2024 | Sheet 1 |


Series 600 Class 6F1
0.002
0.02
0.2
2
20
200
Class 6F1 UB
Class 6F1 LB
Sample 1

# Series 600 Class 6F2



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# Appendix D – Waste Exemption

# Waste exemption registration WEX399788

We confirm that the details you have entered, as shown below, are now on the exemptions register. Your registration should show on the public register within 24 hours. Your registration details, including contact, site and business addresses are below.

**This document is not a permit. Exemptions may have ceased or been revoked.**

To check whether these exemptions are still valid, check the company's registration WEX399788 on the public register of waste exemptions: https://environment.data.gov.uk/public-register/view/search-waste-exemptions

# Business responsibilities

The business or organisation responsible for carrying out the exempt waste operations agrees to:

- comply with all limits on waste types and quantities
- comply with all conditions governing how waste must be stored, handled and treated
- carry out the operations without endangering human health or harming the environment

For the operations to remain exempt they must be carried out without:

- causing risk to water, air, soil, plants or animals
- causing a nuisance through noise and odours
- negatively affecting the countryside or places of special interest

In sensitive locations, extra controls may be needed over and above those set out in the exemptions to make sure this happens.

# Registration details

## Registration details

| | |
|---|---|
| **Reference Number** | WEX399788 |
| **Date registered** | 25 March 2024 |

## Waste exemptions

| | |
|---|---|
| **U1: Use of waste in construction** | Expires on 24 March 2027 |

## Your contact details

| | |
|---|---|
| **Your name** | Peter Phillips |
| **Your telephone number** | 01132575397 |
| **Your email address** | peter.phillips@geo2.co.uk |

## Waste operator details

| | |
|---|---|
| **Business or organisation type** | Limited company |
| **Waste operator responsible for these waste operations** | GEO2 REMEDIATION LIMITED |

| | |
|---|---|
| **Address of the Waste operator** | CONISTON<br>LOUISA STREET<br>BRADFORD<br>BD10 8NE |

## Waste operations contact

| | |
|---|---|
| **Name** | Peter Phillips |
| **Position** | Project Manager |
| **Telephone number** | 01132575397 |
| **Email** | peter.phillips@geo2.co.uk |
| **Address** | CONISTON<br>LOUISA STREET<br>BRADFORD<br>BD10 8NE |

## Waste operation details

| | |
|---|---|
| **Grid reference** | SD 88074 00733 |
| **Site details** | Demolished historical petrol filling station immediately north-west of the junction between Reliance Street and Oldham Road. |

# Appendix E – Photolog

# 1435 – Oldham Road – Photographic Survey 1

**Image 1**: Pre-works site condition

**Image 2**: Pre-works site condition

**Image 3**: Pre-works site condition

**Image 4**: Pre-works site condition

**Image 5**: Pre-works site condition

**Image 6**: Pre-works site condition

# 1435 – Oldham Road – Photographic Survey 2

**Image 7**: Commenced breaking out

**Image 8**: Tank excavation

**Image 9**: Tank exposure

**Image 10**: Tank foams

**Image 11**: Crushing works

**Image 12**: Continued crushing

# 1435 – Oldham Road – Photographic Survey 3

**Image 7**: Removed waste oil tank

**Image 8**: Removed Waste oil tank

**Image 9**: Removal of fuel lines

**Image 10**: Vac tanker removal of interceptor contents

**Image 11**: Breaking out of interceptor

**Image 12**: Removal of interceptor

# 1435 – Oldham Road – Photographic Survey 4

**Image 13**: CBR plate testing

**Image 14**: Off-site disposal works

**Image 15**: Finished site condition

**Image 16**: Finished site condition

**Image 17**: Finished site condition

**Image 18**: Finished site condition