



REMEDIATION AND ENABLING WORKS VALIDATION REPORT

Parcel C

**Former Prysmian Cable Works,
Carr Lane,
Prescot**

Prepared for:



**E3P Report: 10-021-R12-Rev 1
Issued: February 2017**

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PROJECT NUMBER	10-021-Parcel C

Executive Summary

Site Address	Parcel C - Land off Carr Lane, Prescott, L34 1JZ
Grid Reference	E346218, N391982,
Stated Objective	The primary purpose of this report is to document the implementation and subsequent validation of land remediation and enabling works completed as part of the construction of a series of land parcels, this report is focused solely on Parcel C within the wider Prescott Park development site.
Site Remediation and Validation	All works at the site have been conducted in accordance with the agreed Remediation Strategy. The main outputs from the works are:  Demolition of former site buildings;  Excavation, processing of all surface slabs and hard materials;  Replacement of materials in accordance with the E3P enabling specification & engineering requirements;  Cut Fill earthworks to prepare the proposed development platform;  Validation of materials placement to confirm suitability;  Investigation of recorded / unrecorded mine shafts;  Completion of in-situ geotechnical testing;  Restoration of site to required Enabling Works Level; and,  All works to be undertaken in strict accordance with UK Environmental Permitting and Local Planning Authority Requirements and to the satisfaction of Knowsley MBC.
Geotechnical	The Remediation & Enabling works have been designed, implemented and validated by E3P to ensure the construction of a development platform to meet the following criteria:  Placement and engineering of up-fill materials to ensure suitability for Ground Improvement by the construction of Vibro Stone Columns;  Engineering of the up-fill material to ensure compliance with the Highways Design Manual (Series 600) with a CBR >5% in the sub-grade.
Japanese knotweed	Japanese Knotweed has been eradicated from all development Parcels by a process of excavation and removal by McAuliffe with subsequent validation by their independent specialist.
Coal Mining	A single mine entry (shafts) was identified at the south-east sector of the Parcel C Boundary during the site remediation and enabling works. The appointed mine stabilisation contractor, Groundshire have stabilisation works which included the drilling and grouting of this feature in accordance with the CA Permission and in due consideration of industry best practise CIRIA 665. Rockhead was proven at ~8.0m below remediated ground level, however while the shaft has been grouted it currently remains uncapped. No further evidence any other recorded mine entries has been identified during the intrusive drilling or site enabling works. It will therefore be necessary to ensure that all proposed structures and infrastructure are outside the calculated zone of radial influence of the identified shaft (20m of recorded position). The Bastian Coal (Wigan Five Feet) Seam outcrops within the south east of Parcel C beneath with a known thickness of <1.50m dipping south and west. Workings are present within this seam of coal at ~11.0m below remediated ground level. All workings have been stabilised by Groundshire in accordance with the Coal Authority Permission and industry guidance CIRIA 32. Boreholes across the north and central sector confirmed the absence of coal and unrecorded workings.

Executive Summary

Build Phase Development Works

Post remediation constraints for the site include:

-  Unrecorded historical workings have been proven within the Bastian Coal Seam that sub-crops within the southern portion of Parcel C dipping southwest. These workings have been stabilised by pressure grouting completed by Groundshire. NO further coal or workings are present beneath the wider parcel.
-  A mine entry is present in the south-east sector with an appropriate no build zone applied;
-  Sub surface concrete should be designed in accordance with Design Sulphate Class DS-1, Aggressive Chemical Environment for Concrete Classification (AC EC) Ac-1s in accordance with recommendations provided in BRE Special Digest 1 (2005);
-  Placement of clean sub-soil and topsoil in soft landscaped areas must be a minimum of 600mm;
-  Foundation strategies should take into account the properties of the strata left in-situ;
-  Dwellings to be constructed in due consideration of requirements of post remediation ground gas mitigation monitoring; and,
-  Due consideration of historical mine entries.

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E3P Drawing No 10-021-034

McAuliffe Drawing PRES-1265

McAuliffe Drawing PRES-1265

E3P Drawing No 10-021-037

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1. INTRODUCTION

This report details the remediation and enabling works operations that were undertaken by McAuliffe under the supervision of E3P for the proposed redevelopment of the far north western sector of the former Prysmian Cable Works off Carr lane in Prescott for residential end use.

E3P was appointed by Prescott Business Park as the Geo-Environmental Consultant for the site remediation and validation works.

Groundshire Ltd. have been appointed by Prescott Park to undertake supplementary investigation works to determine the location and condition of historical mine workings and where necessary undertake land stabilisation by consolidation through drill and grout and stabilisation to mine shafts as and where required.

It is intended that the central parcel of land of the wider Prysmian Cables site is to be redeveloped as a low rise residential housing with associated, landscaping, highways and infrastructure. The subject site is referred to as Parcel C within the wider Prescott Park Master Plan.

All acronyms used within this report are defined in the Glossary presented in Appendix II.

1.1 Limitations

The limitations of this report are present in Appendix I.

1.2 Correspondence with Regulatory Authorities

Prior to commencement of the remediation and enabling works, approval of the Remediation Strategy was sought from the Environmental Health department at Knowsley Metropolitan Borough Council (KMBC) and the Environment Agency.

All pre-commencement conditions were satisfied fully prior to commencement of the remediation and enabling works.

Throughout the remediation and enabling works, KMBC and their nominated specialist advisors from Merseyside Environmental Advisory Service (MEAS) have been consulted and invited to site to view the works, to confirm that all works are undertaken in accordance with regulatory approved methods.

A final phase of post remediation ground gas and groundwater monitoring was completed by the 30th June 2016 the results of which are documented herein.

1.3 Previous Works

The following phases of Geo-Environmental Assessment works have previously been carried out at the site:

-  **REC** – Geo-Environmental Investigation, Land at Carr Lane, Prescott, Report Reference 43875p2r0, dated May 2011;
-  **WSP** – Phase 1 Geo-Environmental Site Investigation, Report Reference 12121590/002, dated January 2008; and,

-  **WSP** – *Phase 2 Geo-Environmental Site Investigation, Report Reference 12121590/002 dated June 2008.*
-  **E3P** – *Remediation and Enabling Works Strategy, Prysmian Cables, Prescott, Report Reference 10-021-r4-RevA, dated June 2014.*
-  **E3P** – *Specification for Consolidation of Abandoned Mine Workings, Report Reference 10-021-r1 dated February 2014.*

The details of the above-mentioned reports are included within the E3P Remediation and Enabling Works Strategy.

All above mentioned reports have been submitted and approved by KMBC.

Pertinent points of the above mentioned reports are included in Section 2.0.

1.4 Confidentiality

E3P has prepared this report solely for the use of the Client and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from E3P; a charge may be levied against such approval.

2. SITE CHARACTERISTICS

2.1 Site Details

Site Address	Parcel C - Land off Carr Lane, Prescot, L34 1JZ
National Grid Reference	E346218, N391982,
Parcel Plan	

A site location map is presented in Appendix III as Drawing 10-021-001.

Parcel C is located within the central sector of the wider development site to the southwest of parcel A, further ongoing development of commercial premises to the east of the parcel with a new retail development under construction and imminent residential development within the wider Prescot Park to the east, south and west.

The newly constructed adopted highway (spine road) forms the south and south western boundaries and provides access to the development parcel. The detailed construction design, independent Construction Quality Assurance (CQA) and corresponding regulatory approvals are available from the Prescot Park Development Managers.

Prior to the instigation of remediation and enabling works, Parcel C was a spilt level plateau with a re-enforced concrete retaining wall transecting north south through the centre with a large earth retaining embankment supporting the a portion of the large BICC (later) Prysmian Cables main manufacturing building that extended east and north across Parcels A&B.

Parcel C remained largely undeveloped throughout the 20th century with only the formal re-enforced concrete and earth retaining walls formally present. All such features have since been removed as part of the large scale remediation and enabling works documented herein.

The earth embankment and far western portion of Parcel C as a level plateau (higher elevation) was created by infilling the land with ash type materials in the late 1940's and early 1950's prior to the construction of the Prysmian Cable Facility that was predominantly located in Parcel A&B.

The former Prysmian Cables building was a large portal frame structure constructed in the 1950's with a cast in-situ floor slab, underground ducting and large pad foundations to support the superstructure.

The 'main' British Insulated Coated Cable (BICC) works was located circa 250m to the north east of the subject site within an area that is now occupied by the Cables Retail Park. The subject site formed a stand-alone facility ancillary to the main BICC works (to the north east) with a Rod Mill in the southwest (Parcel D), the cable coating facility in Parcel A and Parcel B. The former BICC office building was located within the retail sector with the majority of Parcel E having remained largely undeveloped with only access infrastructure and mounded topsoil.

The overarching aim of the remediation and enabling works was to 'civilise' the landform removing the large difference in elevation (and thus the retaining walls) to create a parcel suitable for residential development.

Upon completion of the remediation and enabling works, Parcel C is a continuous plateau with gradients falling from north east to the west with some localised undulation in the topography.

The newly developed Parcel of land slopes down from east to west at a level of circa 61.50m AOD to circa 52.00m AOD at the western boundary (adjoining Parcel D). it may be necessary to construct a retaining feature at the eastern boundary between Parcel A & C, however this will be a function of their detailed infrastructure design and reserved matters application to suit the final development layout.

2.2 Summary of Parties Involved

NAME OF PARTY	FUNCTION / INTEREST
Land Owner	Prescot Park
Developer	TBC
Geo-Environmental Consultant	E3P
Main Contractor	McAuliffe
Remediation Contractor	McAuliffe
Human Health Regulator / Local Planning Authority	Knowsley MBC
Controlled Waters Regulator	Environment Agency

2.3 Limitations

The limitations of this report are presented in Appendix I.

2.4 Confidentiality

E3P has prepared this report solely for the use of the Client and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from E3P; a charge may be levied against such approval.

3. CONTAMINATION, REMEDIATION & ENABLING WORKS REQUIREMENTS

3.1 Summary of Contamination Issues

3.1.1 Tier 1 Contamination Risk Assessment

The Tier I Risk Assessment for the protection of human health and controlled waters confirmed the site would pose no unacceptable level of risk to future site occupants or the wider environ subject to the construction of the following mitigation measures:

-  Cover system to all gardens (subject to detailed design);
-  Ground gas mitigation measures (defined by post remediation assessment); and,
-  Suitable potable water supply infrastructure.

Asbestos fibres were identified within the anthropogenic soils and as such all earthworks needed to be managed in strict accordance with the methodologies presented within the E3P Remediation Strategy. Furthermore, all asbestos impacted soils required careful placement at depth (>1.50m bgl) below plot areas or areas of hardstanding where they will not be disturbed in the future with circa 1.50m bgl inert cover above.

The REC Tier 1 Controlled Waters Risk Assessment completed for the 'Upper' Portion of the subject site did not identify any potentially soluble / mobile contaminants of concern that would pose a significant level of risk to the wider environ. Furthermore, given the presence of the underlying coal measures within the bedrock, no viable aquifer receptor has been identified.

As part of the post remediation validation, the Environment Agency requested further groundwater analysis and risk assessment to confirm the findings of the original WSP and REC Controlled Waters Risk Assessment. This work has been completed in May / June 2016 and is currently with the EA as part of a paid consultation for review. However, for the avoidance of any doubt Parcel C was not the subject of any historic significant contaminated land uses and thus the controlled waters risk assessment is more pertinent to the wider development site.

Copper slags were identified as being present within the section of the site named the 'finger' originating from the former site processes. These have been determined to not leach, however they were also determined to be chemically unsuitable for retention within the upper 1m of garden areas. Therefore, there was a requirement to ensure all copper slag is placed at a depth below 2.00m where it will not pose an unacceptable risk to chronic human health for the future site users.

As part of the proposed land regeneration works, extensive validation sampling was required to confirm the absence of any potentially volatile / soluble phase contaminants of concern that could present an unacceptable level of risk to the wide environ.

Given the completion of the large scale remediation and enabling earthworks (as detailed within this report) and the requirement to lift, sort and re-engineer the vast majority of anthropogenic materials across the site, it is considered that the extensive validation testing and watching brief during earthworks was the most appropriate method to identify, delineate and remediate any previously unidentified sources of volatile / soluble constituents of concern.

3.1.2 Ground Gas

During the historical monitoring visits completed to by REC & WSP, no significantly elevated concentrations of methane were recorded within any of the probeholes. Elevated levels of carbon dioxide (up to 7.0% v/v) were recorded in WS111 although this is also associated with flow rates of 0.1l/hr.

WS111 was located within the central / southern boundary within the area of up-fill / 'finger', of Parcel B.

The E3P Remediation Strategy required that due to the significant change in elevation and large scale cut / fill earthworks, the ground gas regime must be re-assessed in detail on completion of the post remediation validation monitoring.

The results of this supplementary investigation, monitoring and risk assessment will inform the detailed specification and design of suitable mitigation measures to be incorporated within the proposed development.

3.1.3 Potable Water Supply Infrastructure

Following a process of cut fill earthworks, it is considered that Polyethylene pipeline will be suitable for the proposed potable water infrastructure in the near surface soils between 0.75 and 0.9m bgl.

3.2 Correspondence with Regulatory Authorities

3.2.1 Local Planning Authority – Human Health

Merseyside Environmental Advisory Service (acting as the statutory Human Health regulator on behalf of Knowsley MBC) approved the land remediation works by way of the removal of the pre-commencement condition for the Planning Approval that specifically dealt with the remediation and cut / fill of the site.

The Planning Approval requires that a Validation Report be submitted for each parcel / phase of the proposed development either as part of the clearance of a planning condition on the outline consent. In light of this requirement, this Validation Report will be submitted to KMBC in pursuance of satisfaction of the relevant planning condition.

3.2.2 Environment Agency – Controlled Water & Wider Environ

The REC / WSP Consulting Risk assessment has not identified any significant source of viable exposure pathway to controlled waters or the wider environ within the previous phases of intrusive investigation.

As part of the wider approval process, E3P has instigated a 'Paid Consultation' with the EA to gain the necessary all-inclusive approval for the wider Prescott Park development whereby agreement is sought to confirm that the site poses no risk to controlled waters.

Given the size of the regeneration works, the EA requested further post remediation validation sampling to confirm that the site poses no risk to controlled waters and specifically the critical receptor designated as Prescott Brook circa 170m northwest of Parcel C

Parcel C is located over Bastian & Tenlands coal measures, the subject site is not underlain by an aquifer and as such the sensitivity of this receptor is reduced.

3.3 Environmental Permit & Approvals

3.3.1 Local Authority Pollution Control – LAPC Part B Licensing

The demolition materials were processed using dedicated ‘crushing plant’ mobilised to site by the Remediation Contractor.

Prior to mobilisation the appropriate deployment notification was submitted by the operator to the Local Authority to ensure due notification of the intended arrival and operation of the Part B LAPC process.

Copies of the standard deployment notification are available from the operator directly.

3.3.2 Recovery of Materials – WRAP

The recycled aggregate (recovered in accordance with the WRAP Protocol) has been subject to geotechnical and chemical testing to confirm suitability for use. This process was set out within the remediation and enabling works strategy and geotechnical performance criteria submitted to KMBC for formal approval.

To ensure compliance with the WRAP Protocol, a recycled aggregate must meet the following key criteria:

Aggregate will normally be regarded as having ceased to be waste, and therefore no longer subject to waste management controls, provided:

-  It conforms to the requirements of the European standard appropriate to the use it is destined for in terms of the requisite materials performance specification;
-  The aggregate is produced under Factory Production Control as required by the European standard, which again requires compliance with the standards for a construction aggregate;
-  Within Factory Production Control, inputs are limited and controlled to ensure only inert waste streams defined as acceptable within Appendix C of the WRAP Protocol are utilised;
-  it requires no further processing, including size reduction, for the use it is destined for, i.e. the material is a graded product;
-  It is destined for a use within the designated market sectors;
-  It conforms with CE conformity marking requirements contained in the Construction Products Regulations, which will apply to all aggregates placed on the market to harmonised European Aggregates Standards from July 2013

In essence, to demonstrate compliance with the WRAP protocol a simplistic test must be met:

- 📦 The materials utilised for the production must be inert in both chemical and structural composition and as such must not exceed the total permissible levels for PAH (Coal Tar) or indeed any other contaminants as defined within the assessment criteria within WM3;
- 📦 The material must be processed by appropriately licensed equipment with the relevant permit to ensure compliance with factory conditions;
- 📦 The material must meet the physical requirements for an engineered aggregate; and,
- 📦 The material must have a definitive use / commercial value to demonstrate recovery; and,
- 📦 Validation testing is required to demonstrate compliance with the above criteria.

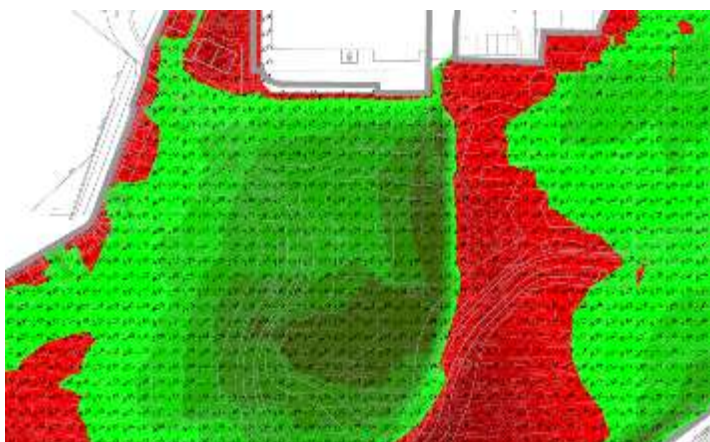
3.3.3 CL:AIRE MMP – Definition of Waste

A Materials Management Plan (MMP) was developed by MacAuliffe in accordance with the industry Code of Practice (Version 2) to document the proposed materials management operations and corresponding management objectives to demonstrate the safe, sustainable and legislatively compliant management and re-use of soils on-site.

The MMP was subject to review by an Qualified Person (QP) in accordance with the requirements of the CoP prior to the signed declaration being made to the CL:AIRE.

The eastern sector (area shaded red) of Parcel C was generally subject large earthwork exercise that required the removal of between 2-3 meters of historically placed fill that formally comprised a large earth embankment that sub-divided the upper and lower plateau. Subsequent to the cut operation, a turn-over of 3.0m was instigated with subsequent replacement of re-engineered material. In the western sector the landform was upfilled by circa 3.0 - 4.0 at the south west boundary to facilitate the construction of the appropriate road grade (area shaded green).

Figure 3.1 – Extract of Cut / Fill Drawing



4. SUMMARY OF REMEDIATION & ENABLING WORKS OBJECTIVES

The proposed remediation activities were detailed within the E3P Remediation Strategy and Enabling Works Plan (10-021-r1; dated June 2014) and supplementary supporting documentation provided by E3P.

This report has been prepared to document the completion of all necessary land remediation and enabling works and to record the presence of any variation in ground conditions or previously unidentified sources of potential contamination, environmental impact or potential nuisance to the wider environ.

4.1 Remediation & Enabling Works Requirement

-  Excavation and processing of all surface slabs and hard materials to a depth of 3.0m from the underside of proposed formation or the base of Made Ground (whichever is the shallower) across the entire site;
-  Breaking down and removal of all above ground structures including historic retaining walls;
-  Crushing, screening and processing of all Made Ground and subsequent replacement to ensure no oversized (>150mm) hard material is present within the upper 3.0m (from underside of enabling works level) of Made Ground across the entire development site;
-  Excavation and appropriate treatment / disposal of all deleterious Made Ground;
-  Excavation of any compressible organic alluvial deposits with subsequent stockpiling and chemical validation;
-  Major earthworks to cut /fill the site and achieve suitable development elevations in accordance with the agreed levels;
-  Importation of geotechnically suitable materials to build levels below proposed roadways and driveways;
-  Render the underlying stratum suitable for re-engineering through a process of Dynamic Compaction (NRG) and or Vibro Replacement Stone Columns;
-  Engineering of all roads, drives and proposed external hard-standing in accordance with the Highways Design Manual (Series 600) to ensure a minimum CBR Value of 5%;
-  Identification, treatment and remediation of any previously unidentified contamination hotspots in strict accordance with methodologies to be agreed with the regulatory authorities;
-  Replacement of materials in accordance with the E3P enabling specification & engineering requirements;
-  Post-remediation gas monitoring to confirm the ground gas regime for the site;
-  Validation of materials placement to confirm suitability; and,

All works to be undertaken in strict accordance with UK Environmental Permitting and Local Planning Authority Requirements and to the satisfaction.

4.2 Second Phase Remediation & Enabling Works – Build Phase

A second post demolition phase of works will be required to ensure the proposed development is constructed in a manner that incorporates the required mitigation measures to ensure the development is compliant with UK Building Regulations and the Local Authority Planning requirements.

Once the ground has been stabilised and rendered suitable for development, the builder will be required to undertake a second phase of remediation works to mitigate the identified theoretical risk to human health.

-  *Construction of all dwellings with appropriate ground gas mitigation measures;*
-  *Use of potable water supply designed in accordance with UKWIR;*
-  *Provide and place a 600mm thick soft growing medium to all garden and landscaped areas of the development (150mm imported topsoil, 450mm site won subsoil).*

4.3 Implementation of Remediation & Enabling Works

DEMOLITION OF EXISTING BUILDINGS

Dates:	May 2014 - July 2014
Overview of Works:	The large variable height retaining wall / ramped access that transected north south through the central portion of the site supporting graded embankment leading to the lower level plateau that was broken down in a controlled manner in April 2014. The resulting historically filled stratum to the rear of the retaining wall was benched back to a safe 45% angle of repose, prior to the instigation of the main earthworks. For the avoidance of any doubt, no high walls or notable changes in natural stratum are present beneath Parcel C. The remains of the concrete pads were excavated and removed from beneath the former structure footprint in May 2014 with the resulting materials stockpiled within the central / southern sector of Parcel A/B for subsequent processing as a recycled aggregate in accordance with the WRAP Protocol. No further structures were present within Parcel C and no previously unidentified structures were encountered throughout the duration of the works to Parcel C.

CUT / FILL ENABLING WORKS

Dates:	March 2015 – October 2015
Drawings:	<i>E3P Drawing 10-021-015</i> – Remediation Master Plan <i>E3P Drawing 10-021-022</i> – Boundary Treatment Plan <i>McAuliffe Drawing PRES-1256_HB_ASBLT</i> – As-Built Survey <i>McAuliffe Drawing PRES-1256_HB_TURN</i> – Turnover Levels
Overview of Works:	Following the demolition of the existing site buildings, all concrete slabs, hardstand and relict sub-structures were lifted and stockpiled pending crushing and processing. In order to achieve the proposed development level, a fill level of circa 0-3m was required to grade the site to a suitable platform level in accordance with the E3P proposed contours issued within the E3P Remediation and Enabling Works Strategy. Given that the site has been the subject of a single phase of previous development, little historical unexpected obstructions / sub-structures were identified within the underlying soils / made ground. Due to the fill required, the re-engineered Made Ground soils were sorted through and deposited with in Parcel C the Parcel slopes from east to west. Made Ground present in the finger of the site was cut and placed within the fill areas in the eastern and central sector of the site. Furthermore, an element of fill was required in the southern perimeter of the site boundary to raise the formation levels to create the required development platform and remediation elevation.

Overview of Works:

Further cut in the south western sector of the wider site (parcel D) of natural drift and bedrock, was utilised to fill the southern sector. The backfill of materials was undertaken in accordance with the E3P Earthworks Remediation Specification (Ref: 10-021-r6).

All soils were inspected during the turnover by E3P in order to assess the potential for any previously unidentified contamination hotspots of areas of potential concern. For the avoidance of doubt, no evidence of potentially impacted soils was identified.

Oversize Materials

All existing hardstanding and any oversize materials were excavated from the Made Ground and stockpiled in the central sector of the upper plateau of the wider proposed development site for sorting and processing. Oversize materials within the Made Ground were very limited and only generally comprised relic foundations from existing and former buildings.

All below ground obstructions and hard materials were crushed to a 6F2 grade material along with the demolition rubble to be utilised within the earthworks at the site. The geotechnical testing certificates for these materials are included in Appendix VI.

E3P attended site to obtain samples of the crushed hard materials for chemical validation in accordance with the E3P Remediation Strategy. As shown above, ten samples of 6F2 were collected in total for chemical analysis.

Chemical analysis identified the crush materials to be chemically suitable for re-use within the earthworks. Although not specifically within the proposed Parcel C development site the adjacent spine road leading from Manchester Road in the north along the western boundary of the site was capped with 300mm of the aforementioned site generated 6F2 crush.

Asbestos Containing Materials (ACM)

Asbestos Containing Materials were identified within the general Made Ground materials across the entire Prysmian Cables site. Whilst not specifically identified within the proposed Parcel C sector, all soils were inspected and confirmed the absence of any visible ACM during the cut and fill enabling works.

The Remediation Contractor, McAuliffe Environmental opted to remove materials with notable visible ACM as oppose to a strategy of placement beneath buildings or hardstand. This option was necessary (in the main) due to the fact that no detailed development plan was available at the site of the remediation and enabling works. To this end, where possible all notable ACM has been removed to site in a highly controlled manner.

Copper Slag

Only isolated cobbles or copper slag was identified at sporadic locations, however no definitive evidence of concentration pockets was identified.

Within the McAuliffe Method Statement provision was made for the deployment and use of appropriate monitoring equipment in the event such material was identified, however given the isolated and relatively small quantities this was not deemed necessary.

Compaction of Materials

Overview of Works:

Within the northern / eastern sector of the Parcel C, the depth of Made Ground post remediation enabling works is >3.0m bgl and such all anthropogenic materials have been lifted to a depth of 3.0m prior to the replacement in accordance with the compaction requirements for the material Type. The use of a Method Compaction specification required the pre-classification of materials generally (6N) prior to their placement in circa 250mm layers and compaction with >5.5T smooth wheeled vibrating roller with >8 passes on each and every layer.

Within the southern / western sector of the site Made Ground generally extends to circa 3.0 to 6.0m below remediated ground level. In this instance the upper 3.0m below remediated platform was lifted, sorted and subsequently replaced in a controlled manner to ensure compliance with a Method Compaction specification.

IDENTIFICATION AND STABILISATION OF MINE SHAFT

Dates:

May 2015

Drawings:

E3P Drawing 10-021-031 – Coal Mining Plan

Groundshire Drawing 12267-001 – Mineshaft Probe Plan (346392-019)

Overview of Works:

The Bastian Coal Seam out-crops at the southern site boundary transecting northwest / southeast dipping in a south westerly direction. The extent of coal workings within this seam is discussed in detail within a number of reports and specifically the Groundshire Mine Stabilisation Completion Report for the wider Prescott site.

In summary the outcrop of the Bastian seam is proven to the north of the spine road at the southern extremity of Parcel C and as such extensive stabilisation works have been completed by Groundshire to ensure consolidation of all workings and ensure that land is stabilised for a future development. For the avoidance of any doubt, Groundshire have been commissioned by Prescott Park to consolidate all mine workings beneath the proposed development parcels in accordance with the E3P specification for mine stabilisation.

A single mine entry is located at the southwestern sector of Parcel C, this feature has been located and stabilised by pressure grouting and capping in accordance with the Coal Authority Requirements. Full details of this work is documented within the Groundshire Completion Report.

The appropriate 'No Build Zones' are denoted on the development layout plan where residential structures would be precluded, however it would be possible to construct adopted highways and infrastructure subject to consultation and approval from the appropriate authority.

In Situ DCP Geotechnical Testing

Dates:	April – June 2015
Drawings:	<i>E3P Drawing 10-021-034</i> – Geotechnical Test Plan
Overview of Works:	Extensive in-situ Dynamic Cone Penetrometer (DCP) tests have been completed on a uniform grid across Parcel C. The DCP Test was generally advanced to 900mm below remediated level to assess the relative in-situ density and inform the calculation of an equivalent CBR Value. The results of the extensive DCP Testing confirmed CBR Values >5% in the near surface increasing to 10% at circa 400mm bgl. The compactions methods undertaken during the remediation has generated a very compact development platform. In many instances the relative in-situ CBR was found to be in excess of 20% at circa 0.50m below remediated level indicating a very low modulus of sub-grade reaction and Youngs modulus confirming the potential for any long term differential settlement was non-existent.

In Situ Plate Load Geotechnical Testing

Dates:	April – June 2015
Drawings:	<i>E3P Drawing 10-021-034</i> – Geotechnical Test Plan
Overview of Works:	In-situ Plate Load Tests have been completed on a uniform grid across Parcel C. The Plate Load test was completed at the remediated surface level to assess the relative instant settlement potential and inform the calculation of an equivalent CBR Value. The results of the Plate Load Testing confirmed CBR Values >5% increasing to >20%. Total recorded settlement under an applied load of 250kN/m² was less than 7mm in all instances confirm no settlement under loads that would significantly exceed the working load for a proposed structure. In many instances the relative in-situ CBR was found to be in excess of 20% at circa 0.50m below remediated level indicating a very low modulus of sub-grade reaction and Youngs modulus confirming the potential for any long term differential settlement was non-existent.

In Situ Zone Load - Geotechnical Testing

Dates:	N/A
Drawings:	<i>E3P Drawing 10-021-034</i> – Geotechnical Test Plan
Overview of Works:	The Zone Load Tests were positioned in accordance with BS1377: Part 9, Section 4.2 as per the E3P Zone Load Test Design and Method Statement, enclosed within this letter (Ref: Drawing 10-009-009). The base plate of each test was surveyed at each corner prior to loading and subsequent monitoring was completed at each 10kN/m² increment to the total loading of 70kN/m² was achieved. Each location was surveyed using a precise laser level to the accuracy of 0.01mm and calibrated on each visit using two fixed control points. The monitoring is ongoing and will be completed by March 2017. Initial monitoring completed in the wider site area confirmed that the materials beneath the site are generally uniform when taking the averages into consideration. The maximum deformation identified from tests across the wider site has been calculated at 13mm under an applied loading of 70kN/m².

4.4 Re-use of Materials & Compliance

With respect to samples Vibrostone 1-5, this material is stockpiled on-site in Parcel D and will be utilised within a Vibro Stone Column, the material form part of a building foundation and as such no future exposure pathway will exist.

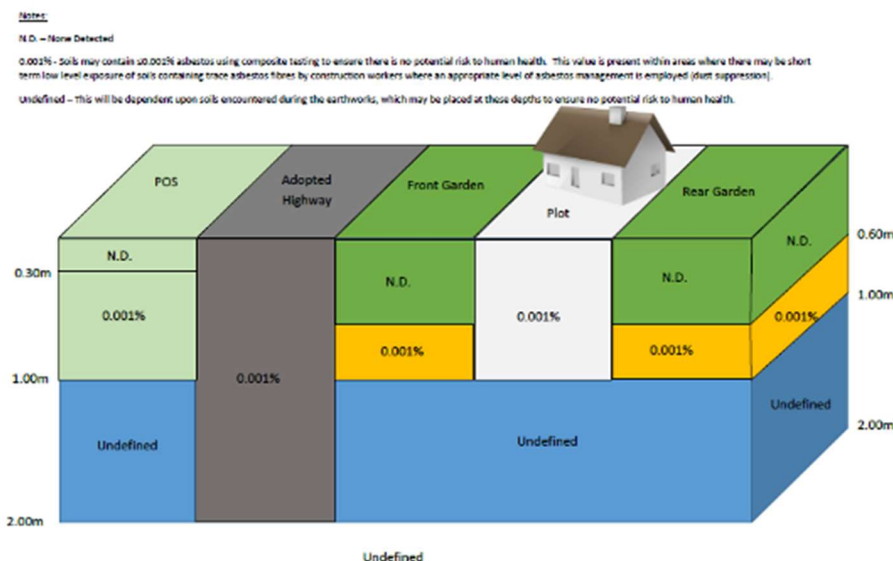
Prior to utilisation of this material, the contractor will undertake asbestos quantification analysis to demonstrate that the asbestos content is <0.001% by volume weight and as such it will not generate an airborne fibre concentration that will exceed the requirements of HSG 248 for the control of workplace exposure. However, for the avoidance of any doubt, the material will completely encapsulated and as such no potential for exposure to future residential site occupants is present.

Samples Subsoil 1-5 is representative of a stockpile of organic material currently located at the south west boundary within Parcel D. This material will be subject to asbestos quantification testing prior to placement within an area of no future sensitivity in accordance with the developed CSM.

For the avoidance of any doubt, all materials that will be utilised within the upper 600mm of a residential garden are to be subject to extensive laboratory testing and will be confirmed to be free of all detectable asbestos. The placement of the clean capping using certified materials will ensure no unacceptable risk to the identified receptors.

For clarity, E3P have included a diagrammatic CSM for the placement and management of asbestos impacted soils upon completion of the highly sensitive residential development.

Figure 4.3 Asbestos Conceptual Site Model



The developed CSM has been prepared in accordance with industry guidance CIRIA 733 with the works instigated in such a manner to ensure no future exposure to the critical residential receptor.

Given the former site use and nature of filled materials, it is self-evident that impact to all anthropogenic materials across the entire site, however given the quantities of material involved and the absence of any visible notifiable asbestos containing materials the overarching risk profile is reduced.

The implementation of the development in a manner that will ensure no future exposure pathway as set out within the CSM is sufficient to ensure the site is entirely suitable for the intended use.

Supplementary Validation Testing has been completed at the remediated surface at 13 No. locations across the site with quantification testing where a positive asbestos fibre result is detected. The results of this analysis are included within the I2 Analytical Report 17-42916 with the sample locations detailed within the drawing in Appendix III.

5. POST REMEDIATION BUILD PHASE REQUIREMENTS

5.1 Overview of Build Phase Requirements

This document details the construction works that are required to ensure full compliance with the remediation Strategy, Regulatory Authorities, Building Control & Warranty Providers;

The following should be implemented during the build phase of the development:

-  Laboratory testing of the imported topsoil;
-  Chemical validation of any additional subsoil imported for use within gardens;
-  Placement and validation of sub-soil (clean material) in a 450mm layer within any plots where the material was not placed during the Remediation & Enabling works;
-  Placement and chemical validation of imported topsoil within all gardens; and,
-  Installation and validation of ground gas protection measures.

5.2 Requirements for Further Works Prior to Substructure Construction

The following items remain to be addressed prior to construction of the development:

ITEM	DISCUSSION
Submission of Validation Report to Regulators	N/A

5.3 Gas Mitigation Measures

The E3P Remediation Strategy required the installation of validation six ground gas monitoring wells across Parcel C to assess the post remediation ground gas regime.

The locations of the Ground Gas Monitoring wells are detailed within the E3P Drawing (ref: 10-021-040) included within Appendix III of this.

Concentrations of methane (CH₄), carbon dioxide (CO₂) and Oxygen (O₂) were measured using an infra-red gas analyser (GFM435) calibrated to a reference standard (before and after each survey) and gas flow rates were measured using an attached flow pod.

Gas measurements were recorded for a minimum of sixty seconds at each location, at which point the maximum concentration of CH₄ and CO₂ together with the lowest concentration of O₂ were recorded. The results of the ground gas monitoring are presented in Table 5.1 (overleaf).

Table 5.1 Summary of Ground Gas Monitoring Results

WELL	DATE	CH ₄ INITIAL %V/V	CH ₄ STEADY %V/V	CH ₄ GSV l/hr	CO ₂ INITIAL %V/V	CO ₂ STEADY %V/V	CO ₂ GSV l/hr	O ₂ %V/V	ATMOS(mB)	ATMOS. DYNAMI C	FLOW (l/hr)	RESP ONSE ZONE (mbgl)	DEPTH TO BASE (mbgl)	DEPTH TO WATER (mbgl)
WS215	23/3/2016	0.1	0.1	-0.00026	0.6	0.6	-0.00156	2	1011	Rising	-0.26	0.50- 3.0	3.13	DRY
	01/04/2016	0.1	0.1	0.0001	0.5	0.5	0.0005	4.5	1011	Steady	0.1		3.12	DRY
	08/04/2016	0.1	0.1	-0.00052	0.6	0.6	-0.00312	3.5	1007	Falling	-0.52		3.13	dry
	14/4/2016	0.1	0.1	-0.00013	0.5	0.5	-0.00065	3.9	1003	Steady	-0.13		3.13	dry
	22/04/2016	0.1	0.1	-0.00026	0.6	0.6	-0.00156	4	1020	Rising	-0.26		3.13	dry
	29/4/2016	0.1	0.1	-0.00013	0.5	0.5	-0.00065	3.8	1006	Falling	-0.13		3.13	dry
WS216	23/3/2016	1.9	1.9	-0.00988	0.8	0.8	-0.00416	1.7	1011	Rising	-0.52	0.5- 5.0	5.04	4.79
	01/04/2016	0.2	0.2	-0.00158	0.3	0.3	-0.00237	4.8	1011	Steady	-0.79		5.03	4.83
	08/04/2016	0.3	0.3	-0.00156	0.7	0.7	-0.00364	7.1	1007	Falling	-0.52		5.06	5.06
	14/4/2016	0.2	0.2	-0.00026	0.6	0.6	-0.00078	6.9	1003	Steady	-0.13		5.05	5.05
	22/04/2016	0.3	0.3	-0.00156	0.6	0.6	-0.00312	7	1020	Rising	-0.52		5.05	5.05
	29/04/2016	0.1	0.1	-0.00052	0.1	0.1	-0.00052	20	1006	Falling	-0.52		5.07	4.85
WS217	23/3/2016	1.4	1.4	-0.09048	0.5	0.5	-0.0026	2.8	1011	Rising	-0.52	0.5- 4.0	4.19	DRY
	01/04/2016	0.1	0.1	-0.00079	0.4	0.4	-0.00316	9.8	1011	Steady	-0.79		4.19	4.19
	08/04/2016	0.1	0.1	-0.00052	0.3	0.3	-0.00156	9.1	1007	Falling	-0.52		4.2	dry
	14/4/2016	0.1	0.1	-0.00052	0.3	0.3	-0.00156	9.4	1003	Steady	-0.52		4.2	dry
	22/04/2016	0.1	0.1	-0.00052	0.4	0.4	-0.00208	8.2	1020	Rising	-0.52		4.2	dry
	29/4/2016	0.1	0.1	-0.00052	0.5	0.5	-0.0026	7.4	1006	Falling	-0.52		4.2	dry

TABLE 5.1 Continued Summary of Ground Gas Monitoring Results

WELL	DATE	CH ₄ INITIAL %V/V	CH ₄ STEADY %V/V	CH ₄ GSV l/hr	CO ₂ INITIAL %V/V	CO ₂ STEADY %V/V	CO ₂ GSV l/hr	O ₂ %V/V	ATMOS(mB)	ATMOS. DYNAMIC	FLOW (l/hr)	RESP ONSE ZONE (mbgl)	DEPTH TO BASE (mbgl)	DEPTH TO WATER (mbgl)
WS218	23/3/2016	1.2	1.2	-0.01092	0.9	0.9	-0.00234	6.5	1011	Rising	-0.26	0.5- 4.0	4.12	DRY
	01/04/2016	0.3	0.3	-0.00156	0.4	0.4	-0.00208	10.4	1011	Steady	-0.52		4.12	DRY
	08/04/2016	0.1	0.1	-0.00079	0.1	0.1	-0.00079	19.8	1007	Falling	-0.79		4.15	dry
	14/4/2016	0.1	0.1	-0.00052	0.2	0.2	-0.00104	19.4	1003	Steady	-0.52		4.13	dry
	22/04/2016	0.1	0.1	-0.00052	0.2	0.2	-0.00104	19.6	1020	Rising	-0.52		4.14	dry
	29/04/2016	0.1	0.1	-0.00052	0.1	0.1	-0.00052	19.9	1006	Falling	-0.52		4.15	dry
WS219	23/3/2016	3.5	3.5	-0.0221	0.9	0.9	-0.00234	1.5	1011	Rising	-0.26	0.5- 4.0	4.05	4.05
	01/04/2016	0.1	0.1	-0.00085	0.4	0.4	-0.0034	11.5	1011	Steady	-0.85		4.05	4.05
	08/04/2016	0.1	0.1	-0.00079	0.2	0.2	-0.00158	19.4	1007	Falling	-0.79		4.06	4.06
	14/4/2016	0.1	0.1	-0.0005	0.3	0.3	-0.0015	18.9	1003	Steady	-0.5		4.06	4.06
	22/04/2016	0.1	0.1	-0.00026	0.4	0.4	-0.00104	18.4	1020	Rising	-0.26		4.06	4.06
	29/04/2016	0.1	0.1	-0.00052	0.3	0.3	-0.00156	18.8	1006	Falling	-0.52		4.06	dry
WS220	23/3/2016	0.7	0.7	-0.00364	0.4	0.4	-0.00208	8.5	1011	Rising	-0.52	0.5- 2.50	2.55	DRY
	01/04/2016	0.1	0.1	0.00079	0.2	0.2	0.00158	13.8	1011	Steady	0.79		2.54	1.95
	08/04/2016	0.1	0.1	-0.00026	0.2	0.2	-0.00052	17.2	1007	Falling	-0.26		2.54	1.58
	14/4/2016	0.1	0.1	-0.00052	0.2	0.2	-0.00104	16.9	1003	Steady	-0.52		2.55	1.6
	22/04/2016	0.1	0.1	-0.0007	0.1	0.1	-0.0007	17.1	1020	Rising	-0.7		2.55	1.62
	29/04/2016	0.1	0.1	-0.00026	0.2	0.2	-0.00052	16.8	1006	Falling	-0.26		2.55	1.6

The potential impact on the development from ground gases has been assessed with reference to standards and guidelines published in CIRIA Report 665 (*Assessing risks posed by hazardous ground gases to buildings*, 2007). However, it is recommended that the full ground gas assessment and recommended protection measures are agreed with the local authority prior to their adoption on-site. Furthermore, all protection measures adopted should be validated by a suitably qualified engineer.

The site characterisation report and subsequent land remediation and enabling works identified the following potential sources of ground gas:

-  Made Ground Deposits
-  Coal Seams

During the monitoring visits completed to date, no significantly elevated concentrations of methane or carbon dioxide were recorded within any of the Probeholes.

The monitoring of hazardous ground gasses has been completed at periods of falling and low barometric pressure which is the critical determining factor in the assessment of risk associated with potentially hazardous ground gasses to ensure the establishment of worst case scenario. It is noted that while pressures did not fall below 1000mb, the nature of a changing and falling weather condition is the overriding factor in ensuring monitoring of the worst-case scenario.

Site derived Made Ground was predominantly inert in composition comprising construction aggregates, combusted ash and rocks derived from the discard of copper ore. No notable putrescible material was recorded within the large earthworks operation. The material would therefore no be considered to represent a significant ground gas generation potential.

In accordance with the methodology outlined with the CIRIA publication C665, E3P have utilised the results of the ground gas monitoring surveys to calculate a tentative Gas Screening Value (GSV). The maximum GSV calculated for methane was 0.02 l/hr (WS219) and for carbon dioxide was 0.0041 l/hr (WS216).

The GSV has been compared to the criteria outlined with CIRIA C665 to determine the level of risk to the proposed development and to ensure the appropriate remedial options are incorporated into any future building design in this area.

Ground gas monitoring to date suggests that the site will fall into the bracket for Characteristic Situation 2 / Amber 1.

BS8485 requires that for Characteristic Situation 2 the proposed low rise development constructed using a cast in-situ (suspended) floor slab will require the following ground gas mitigation

Based on the monitoring results to date (6 No. Surveys) the site would be classified as CS2 which will require specialist mitigation measures to be constructed in accordance with BS8485 as summarised overleaf.

GAS PROTECTION SCORES FOR THE STRUCTURAL BARRIER		SCORE
a) Floor and substructure design		
Precast suspended segmental subfloor (i.e. beam and block).		0
Cast in situ ground bearing floor slab (with only nominal mesh reinforcement.		0.5
Cast in situ monolithic reinforced ground bearing raft or reinforced cast in situ suspended floor slab with minimal penetrations.		1 or 1.5
Basement floor and walls conforming to BS 8102:2009, Grade 2 waterproofing.		2
Basement floor and walls conforming to BS 8102:2009, Grade 3 waterproofing.		2.5
PROTECTION ELEMENT SYSTEM	SCORE	COMMENTS
Gas protection scores for ventilation protection measures		
(a) Pressure relief pathway (usually formed of low fines gravel or with a thin geocomposite blanket or strips terminating in a gravel trench external to the building)	0.5	Whenever possible a pressure relief pathway (as a minimum) should be installed in all gas protection measures systems. If the layer has a low permeability and / or is not terminated in a venting trench (or similar), then the score is zero.
(b) Passive sub floor dispersal layer: Media used to provide the dispersal layer are:  Clear void  Polystyrene void former blanket  Geocomposite void former blanket  No-fines gravel layer with gas drains  No-fines gravel layer	Very good performance Good performance	2.5 1.5
(c) Active dispersal layer, usually comprising fans with active abstraction (suction) from a sub floor dilution layer, with roof level vents. The dilution layer may comprise a clear void or be formed of geocomposite or polystyrene void formers.	1.5 to 2.5	This system relies on continued serviceability of the pumps, therefore alarm and response systems should be in place. There should be robust management systems in place to ensure the continued maintenance of the system, including pumps and vents. Active ventilation should always be designed to meet at least "good performance".
(d) Active positive pressurization by the creation of a blanket of external fresh air beneath the building floor slab by pumps supplying air to points across the central footprint of the building into a permeable layer, usually formed of a thin geocomposite blanket.	1.5 to 2.5	This system relies on continued operation of the pumps, therefore alarm and response systems should be in place. The score assigned should be based on the efficient "coverage" of the building footprint and the redundancy of the system. Active ventilation should always be designed to meet at least "good performance".

PROTECTION ELEMENT SYSTEM	SCORE	COMMENTS
(e) Ventilated car park (floor slab of occupied part of the building under consideration is underlain by a basement or undercroft car park)	4	Assumes that the car park is vented to deal with car exhaust fumes, designed to <i>Buildings Regulations 2000, Approved Document F [9]</i> .
Gas protection score for the gas resistant membrane		
Gas resistant membrane meeting all of the following criteria:  Sufficiently impervious to the gases with a methane gas transmission rate <40.0 ml/day/m²/atm (average) for sheet and joints (tested in accordance with BS ISO 15105-1 manometric method_;  Sufficiently durable to remain serviceable for the anticipated life of the building and duration of gas emissions;  Sufficiently strong to withstand in-service stresses (eg settlement if placed below a floor slab);  Sufficiently strong to withstand the installation process and following trades until covered (eg penetration from steel fibres in fibre reinforced concrete, penetration of reinforcement ties, tearing due to working above it, dropping tools etc);  Capable, after installation, of providing a complete barrier to the entry of the relevant gas; and,  Verified in accordance with CIRIA C735.	2	The performance of membranes is heavily dependent on the quality and design of the installation, resistance to damage after installation and integrity of joints. For example, a minimum 0.40mm thickness (equivalent to 370g/m² for polyethylene) reinforced membrane (virgin polymer) meets the performance criteria opposite. If a membrane is installed that does not meet all the criteria opposite then the score is zero.

The validation inspection is to include verification of the items below:

INSPECTION	METHOD
Product Verification	Confirmation that suitable products have been installed to consist of photographs of product types, labels on packaging and delivery tickets.
Wall Cavity Inspection	Confirmation that gas membrane spans the external wall cavity above the periscopic vents.
General Condition	The membrane is to be inspected to ensure there are no tears, punctures or rips.
Jointing	The engineer is to check the overlaps between membranes are correctly sealed with sufficient overlaps.
Service Entry Points	Verification of the presence of preformed tophats sealed to the pipe and membrane as per the construction detail.
Passive Venting Systems	The engineer should verify the presence of vents at 2m centres on at least 3 of the external walls. Verification of the stone venting layer and presence of pipes to be supplied by photographic records from site.

Examples of gas membrane verification (photographs include different membrane types for demonstrative purposes only – gas membranes are site specific):





Photographs 1 and 2: Check general condition of membrane for punctures / tears etc



Photograph 3: Confirm membrane product type and check joints between rolls of membrane to ensure 150mm overlap and presence of double sided butyl tape (by touch – may not be visible) and girth jointing tape.



Photograph 4: Check top hat is sealed to membrane and pipework. If the formed top hat is not tight to the pipework then also confirm presence of jubilee clip beneath butyl tape.

5.2 Chemical Analysis of Clean Cover System

The Remediation Strategy for the site, with respect to human health of the future site users includes the provision of a chemically suitable clean material to be installed in all garden and landscaped areas; the construction of the 600mm clean cover / placement of clean material shall consist of:

-  450mm subsoil; and,
-  150mm topsoil.

In accordance with the current requirements of the regulatory authorities, validation samples will be collected from all materials that are to be imported or re-used on site to confirm the proposed development will pose no unacceptable risk to human health or the wider environ.

Subsoil and topsoil shall be free of any deleterious materials, such as buildings materials, timber, plastics etc and conform to the requirements of BS 3882:2007.

The agreed sampling frequency for these materials is presented in Table 6.3 below.

Table 5.3 - Specification of Materials Validation Laboratory Analysis

Material Use	Testing Frequency	Suite of Analysis
Site generated Sub-Soil (450mm garden cover)	1 Sample Per 100m ³	A / B / C / D
Imported Topsoil (150mm garden cover)	1 sample per 50m ³	A / B / C / D

Notes – Table 5.3

Suites of Analysis

- A) Speciated PAH
- B) Banded TPH (C5-C35)
- C) Asbestos (ID)
- D) CLEA Inorganic

All analysis prescribed above to be completed by UKAS accredited laboratory.

Source testing certificates and validation testing of the imported materials shall be provided and is required to comply with the criteria set out in Table 6.4 overleaf.

Table 5.4 Remediation Targets-Low rise residential end use
Human Health Remediation Targets – Low Rise Residential End Use

Determinand	Units	Within 600mm Cover System (Garden)	Hard Standing and >600mm of cover system	Public Open Space 300mm Cover	Public Open Space >300mm	Pathway
Arsenic	mg/kg	37 ⁽ⁱ⁾	40 ⁽ⁱⁱ⁾	79 ⁽ⁱⁱⁱ⁾	640 ^(iv)	1
Cadmium	mg/kg	11 ⁽ⁱ⁾	85 ⁽ⁱⁱ⁾	120 ⁽ⁱⁱⁱ⁾	532 ^(iv)	1
Chromium (Hexavalent)	mg/kg	6 ⁽ⁱ⁾	6 ⁽ⁱⁱ⁾	7.7 ⁽ⁱⁱⁱ⁾	220 ^(iv)	1
Lead	mg/kg	210 ^(vi)	330 ^(vii)	760 ^(viii)	760 ^(viii)	1
Elemental Mercury	mg/kg	1.2 ⁽ⁱ⁾	1.2 ⁽ⁱⁱ⁾	16 ⁽ⁱⁱⁱ⁾	30 ^(iv)	2
Nickel	mg/kg	180 ⁽ⁱ⁾	180 ⁽ⁱⁱ⁾	230 ⁽ⁱⁱⁱ⁾	3400 ^(iv)	1
Selenium	mg/kg	250 ⁽ⁱ⁾	430 ⁽ⁱⁱ⁾	1100 ⁽ⁱⁱⁱ⁾	1800 ^(iv)	1
Copper	mg/kg	2400 ⁽ⁱ⁾	7100 ⁽ⁱⁱ⁾	12000 ⁽ⁱⁱⁱ⁾	44000 ^(iv)	1
Zinc	mg/kg	3700 ⁽ⁱ⁾	40000 ⁽ⁱⁱ⁾	81000 ⁽ⁱⁱⁱ⁾	170000 ^(iv)	1
Phenol	mg/kg	280 ^{(i)(xi)}	280 ^{(xiv)(xi)}	760 ^{(iii)(xi)}	760 ^{(iv)(xi)}	2
Naphthalene	mg/kg	2.3 ^{(i)(xi)}	2.3 ^{(xiv)(xi)}	1200 ^{(iv)(xi)}	1200 ^{(iv)(xi)}	2
Acenaphthylene	mg/kg	170 ^{(i)(xi)}	500 ^(v)	15000 ^{(iii)(xi)}	29000 ^{(iv)(xi)}	3
Acenaphthene	mg/kg	210 ^{(i)(xi)}	500 ^(v)	15000 ^{(iii)(xi)}	29000 ^{(iv)(xi)}	1
Fluorene	mg/kg	170 ^{(i)(xi)}	500 ^(v)	9900 ^{(iii)(xi)}	20000 ^{(iv)(xi)}	1
Phenanthrene	mg/kg	95 ^{(i)(xi)}	500 ^(v)	3100 ^{(iii)(xi)}	6200 ^{(iv)(xi)}	3
Anthracene	mg/kg	500 ^{(i)(xi)}	500 ^(v)	74000 ^{(iii)(xi)}	150000 ^{(iv)(xi)}	3
Fluoranthene	mg/kg	280 ^{(i)(xi)}	500 ^(v)	3100 ^{(iii)(xi)}	6300 ^{(iv)(xi)}	3
Pyrene	mg/kg	500 ^{(i)(xi)}	500 ^(v)	7400 ^{(iii)(xi)}	15000 ^{(iv)(xi)}	3
Benzo(a)Anthracene ^(c)	mg/kg	7.2 ^{(i)(xi)}	11 ^{(ii)(xi)}	29 ^{(iii)(xi)}	49 ^{(iv)(xi)}	3
Chrysene	mg/kg	15 ^{(i)(xi)}	30 ^{(ii)(xi)}	57 ^{(iii)(xi)}	93 ^{(iv)(xi)}	3
Benzo(b)Fluoranthene ⁽ⁱⁱⁱ⁾	mg/kg	2.6 ^{(i)(xi)}	3.9 ^{(ii)(xi)}	7.1 ^{(iii)(xi)}	13 ^{(iv)(xi)}	3
Benzo(k)Fluoranthene ⁽ⁱⁱⁱ⁾	mg/kg	77 ^{(i)(xi)}	110 ^{(ii)(xi)}	190 ^{(iii)(xi)}	370 ^{(iv)(xi)}	3
Benzo(a)Pyrene ^(vii)	mg/kg	2.2 ^{(i)(xi)}	3.2 ^{(ii)(xi)}	5.7 ^{(iii)(xi)}	11 ^{(iv)(xi)}	3
Indeno(123-cd)Pyrene	mg/kg	27 ^{(i)(xi)}	45 ^{(ii)(xi)}	82 ^{(iii)(xi)}	150 ^{(iv)(xi)}	3
Dibenzo(a,h)Anthracene	mg/kg	0.24 ^{(i)(xi)}	0.31 ^{(ii)(xi)}	0.57 ^{(iii)(xi)}	1.1 ^{(iv)(xi)}	3
Benzo(ghi)Perylene	mg/kg	320 ^{(i)(xi)}	360 ^{(ii)(xi)}	640 ^{(iii)(xi)}	1400 ^{(iv)(xi)}	3
TPH C ₅ -C ₆ (aliphatic)	mg/kg	42 ^{(i)(xi)}	42 ^{(ii)(xi)}	42 ^{(ii)(xi)}	10000 ^{(xiv)(xi)}	2
TPH C ₆ -C ₈ (aliphatic)	mg/kg	100 ^{(i)(xi)}	100 ^{(ii)(xi)}	100 ^{(ii)(xi)}	10000 ^{(xiv)(xi)}	2
TPH C ₈ -C ₁₀ (aliphatic)	mg/kg	27 ^{(i)(xi)}	27 ^{(ii)(xi)}	27 ^{(ii)(xi)}	10000 ^{(xiv)(xi)}	2
TPH C ₁₀ -C ₁₂ (aliphatic)	mg/kg	130 ^{(i)(xi)}	130 ^{(ii)(xi)}	130 ^{(ii)(xi)}	10000 ^{(xiv)(xi)}	2
TPH C ₁₂ -C ₁₆ (aliphatic)	mg/kg	1000 ^{(xiv)(xi)}	1000 ^{(xiv)(xi)}	1000 ^{(xiv)(xi)}	10000 ^{(xiv)(xi)}	1
TPH C ₁₆ -C ₂₁ (aliphatic)	mg/kg	500 ^{(xiv)(xi)}	500 ^{(xiv)(xi)}	500 ^{(xiv)(xi)}	10000 ^{(xiv)(xi)}	1
TPH C ₂₁ -C ₃₅ (aliphatic)	mg/kg					1
TPH C ₅ -C ₇ (aromatic)	mg/kg	70 ^{(i)(xi)}	70 ^{(xiii)(xi)}	70 ^{(xiii)(xi)}	10000 ^{(xiv)(xi)}	2
TPH C ₇ -C ₈ (aromatic)	mg/kg	130 ^{(i)(xi)}	130 ^{(xiii)(xi)}	130 ^{(xiii)(xi)}	10000 ^{(xiv)(xi)}	2
TPH C ₈ -C ₁₀ (aromatic)	mg/kg	34 ^{(i)(xi)}	34 ^{(xiii)(xi)}	34 ^{(xiii)(xi)}	10000 ^{(xiv)(xi)}	2
TPH C ₁₀ -C ₁₂ (aromatic)	mg/kg	74 ^{(i)(xi)}	74 ^{(xiii)(xi)}	74 ^{(xiii)(xi)}	10000 ^{(xiv)(xi)}	2
TPH C ₁₂ -C ₁₆ (aromatic)	mg/kg	140 ^{(i)(xi)}	140 ^{(xiii)(xi)}	140 ^{(xiii)(xi)}	10000 ^{(xiv)(xi)}	1
TPH C ₁₆ -C ₂₁ (aromatic)	mg/kg	260 ^{(i)(xi)}	260 ^{(xiii)(xi)}	260 ^{(xiii)(xi)}	10000 ^{(xiv)(xi)}	1
TPH C ₂₁ -C ₃₅ (aromatic)	mg/kg	1000 ^{(xiv)(xi)}	1000 ^{(xiv)(xi)}	1000 ^{(xiv)(xi)}	10000 ^{(xiv)(xi)}	1

Notes 1

Asbestos will be screened visually on-site by a qualified environmental consultant and where potential ACM is identified representative samples will be subject to quantitative analysis of volume by weight. Should any ACM be identified within the soil matrices, further detailed % assessment would be required when the reported laboratory result exceeds the limit of detection for the analytical method at 0.01% by volume (weight).

Notes 2

Excludes matrices where free product is observed;
Commercial Tier 1 GAC modelled to assume no exposure pathway; and,
No viable exposure pathway beneath hard standing and cover system.

Notes 3

Main Exposure Pathways: 1 = Soil Ingestion, 2 = Vapour Inhalation (indoor), 3 = Dermal Contact & Ingestion, 4 = Dust Inhalation.

Abbreviations: GAC = General Assessment Criteria, n = number of samples, MC = Maximum Concentration; NA – Not Applicable (no exceedance of assessment criteria); Loc of MC = Location of Exceedances

- (i) Value derived from LQM Sutable 4 Use Levels (S4ULs) for residential end use **with** plant uptake.
- (ii) Value derived from LQM Sutable 4 Use Levels (S4ULs) for residential end use **without** plant uptake – these levels used below 600mm cover system within residential gardens as soils will be present within a residential setting yet soils will not be disturbed and garden plants will not reach these soils.
- (iii) Value derived from LQM Sutable 4 Use Levels (S4ULs) for Public open Space (POS) residential.
- (iv) Value derived from LQM Sutable 4 Use Levels (S4ULs) for Public Open Space (POS) park – these levels used below 300mm POS cover system as soils will not be disturbed by any future site users and exposure to these soils will be similar to a park end use.
- (v) Value derived from LQM Sutable 4 Use Levels (S4ULs) alongside assessment with WM3 to ensure that materials remaining on site do not exceed the WM3 toxicity criteria for hazardous waste.
- (vi) Value derived from Category 4 Screening Levels (C4SL) for residential land use **with** homegrown produce.
- (vii) Value derived from Category 4 Screening Levels (C4SL) for residential land use **without** homegrown produce.
- (viii) Value derived from Category 4 Screening Levels (C4SL) for Public open Space (POS) residential.
- (ix) Value derived from Category 4 Screening Levels (C4SL) for Public Open Space (POS) park.
- (x) Mercury – Based on elemental Mercury.
- (xi) PAH and TPH levels used are for 1% SOM.
- (xii) Xylenes based on p-xylene (o-xylene 2600mg/kg, m-xylene 3500mg/kg) and is capped by its solubility.
- (xiii) Value derived from LQM Sutable 4 Use Levels (S4ULs) for residential end use **with** plant uptake due to the volatilisation risk.
- (xiv) BTEX is not SOM related due to inhalation pathway.

5.5 Placement of Chemically Suitable Cover System

Proposed garden and landscaped areas within the residential development require a 600mm chemically suitable cover system in order to break the exposure pathway between the end user and the contaminants.

Procedure for Placement:

-  *If proposed utilities are to be placed within the cover system, the clean cover should be placed prior to installation of these utilities;*
-  *If natural drift deposits are encountered, excavation can cease here;*
-  *Garden and landscaped areas need to be constructed with a suitable 600mm clean cover system that will comprise 450mm chemically validated subsoil, with 150mm topsoil overlaying this. **Topsoil & Subsoil is required to be confirmed as chemically suitable prior to placement.***

Garden Validation Procedure

The placement of 600mm of clean material will be undertaken during the build phase works of the project.

The placement of subsoil and corresponding validation will be documented within the Garden Validation Letters (to be issued on completion of the contractor's works).

Photographic evidence of the placement of 150mm of certified topsoil and 450mm of subsoil will be undertaken on completion of construction works which will constitute the completion of the 600mm clean cover.

This element will also be checked by the Building Control Officer as part of the site completion prior to issuing of a CML certificate.

PROCEDURE	METHOD
Chemical Validation	Imported sub-soils and topsoil will need to be chemically analysed to confirm suitability for use with the proposed cover system prior to installation and completion of the garden systems. If acceptable the materials can be installed to the required depth at which time the plot will be deemed complete following a validation procedure.
Trial Holes	Trial holes are deemed necessary for the all plots given that the 600mm cover system will need to be placed on each plot during the build phase.
Validation	Photographic evidence will be taken of the subsoil / topsoil placement demonstrating the depth of installed cover system and practical completion of works are required for each and every plot.
Validation Certificate	As and when certified sub-soil and topsoil has been placed, inspected and photographed for each plot, a validation completion certificate will be prepared to include plot specific photographs and laboratory test certification.
Completion Report	Upon completion of all garden and landscaped areas within the development, a Completion Report will be issued providing the confirmation that all remediation requirements have been achieved.



Photographs 1 and 2: Examples of validation photographs demonstrating clean cover.

5.6 Notes

If any of the procedures as outlined within the Build Phase Development Requirements Plan are not completed, this may result in a delay in obtaining a Warranty and Council for Mortgage Lenders and a Certificate of Completion.

Post Remediation Constraints for the site will include:

-  Topsoil to be supplied by the developer, with appropriate quality checks if any further topsoil is required;
-  Placement of clean subsoil and topsoil in soft landscaped areas must be a minimum of 600mm or natural ground (whichever is the shallower). The placement of this material will require independent validation;
-  The remediation and enabling works have been implemented in a manner to ensure suitability or Ground Improvement by the construction of Vibro Stone Columns;
-  All dwellings should be constructed with the appropriate Ground Gas Mitigation Measures;
-  Consultations will be completed with the Local Authority to enable the satisfactory discharge of planning conditions associated with the planning consent for the site.

6. SCOPE OF MINE STABILISATION & CONSOLIDATION WORKS

Based on the pre-commencement Ground Investigations, the Mine Stabilisation works instigated by the Specialist Mine Stabilisation Contractor (Groundshire) focused on the completion of two primary objectives:

-  Location of the Wigan Five Feet Outcrop within the wider Prescott Park development site and subsequent Drill & Grout works to stabilise known voids and ensure the risk associated with consolidation of abandoned mine workings and resulting subsidence at the surface was mitigated in full; and,
-  Investigation of all known mine entries by a process of probe drilling in a spiral formation from the recorded centre of a shaft location to locate the mine entry (where possible) and instigate stabilisation works by pressure grouting and capping in accordance with the E3P Performance Specification, Coal Authority Permission and industry best practice document CIRIA SP32.

All works completed by Groundshire were undertaken in accordance with the Coal Authority Permission, a copy of which is included within the Appendices of this Validation report.

6.1 Drill & Grout Works

Drilling and Grouting works commence within areas of known workings beneath Parcel C (south west sector) where historical workings had been proven at a shallow depth with insufficient rick cover (10x Seam Thickness). The boreholes were drilled on a 6m Grid with 4.5m diamond infill centres across the site as agreed with the Coal Authority and documented in detailed within the Groundshire Completion Report.

Drill holes were gradually and systematically advanced northwards to track the Wigan Five Feet Seam with the intention of locating the outcrop and ensuring consolidation of all mine workings in the process. This operation required the drilling of a significant number of holes on a close centre grid as detailed within the Groundshire Drawings 12267-001 Rev A Grout Layout Final (included within the Appendices of this report).

This systematic approach and process confirmed that the outcrop of the Wigan Five Feet Coal Seam is to the south of the conjectured position as inferred by the BGS and Coal Authority Mapping. To demonstrate the location of extent of drill holes where coal and workings have been identified, E3P has included a screenshot of the Groundshire Grout Layout Report as Figure 5.1 (overleaf).

Where the drill holes are denote by a red marker, coal and workings was confirmed, however where the drill hole is green no coal is present, as can be seen from this information, the location of the Wigan Five Feet seam and extent of workings has been clearly defined to be at the south of development Parcel C.

Figure 6.1 Area of Drill & Grout Pertinent to Parcel C



In light of the detailed information obtained from the Drill & Grout Operations, it was determined that the Wigan Five Feet Seam (Bastian) had been mispositioned by the BGS & Coal Authority as was suggested within the E3P Specification for the Consolidation of Abandoned Mine Workings.

To further disprove the presence of either a shallow coal seam or unrecorded workings beneath the untreated sector of the proposed development Parcel, 16 No. Boreholes were advanced by Groundshire within Parcel C, all of which confirmed the absence of any coal seam or unrecorded mine workings within the wider parcel that was not subject to stabilisation works.

Based on the extensive information provided as part of the Groundshire Drill & Grout Works and subsequent Ground Investigations across Parcel C, it is concluded that all recorded workings within the Wigan Five Feet seam immediately southwest of the outcrop have been stabilised in accordance with the Coal Authority Permission Process and industry best practise.

6.2 Mine Entries

Unrecorded Mine Entry

A single mine entry (shafts) was identified at the south-east sector of the Parcel C Boundary during the site remediation and enabling works.

The appointed mine stabilisation contractor, Groundshire have stabilisation works which included the drilling and grouting of this feature in accordance with the CA Permission and in due consideration of industry best practise CIRIA 665. Rockhead was proven at ~8.0m below remediated ground level, however while the shaft has been grouted it currently remains uncapped.

Rockhead is present at ~8.0m within the vicinity of the reported shaft and as such the conjectured radial zone of influence of in the event of any instability is <8.0m.

APPENDIX I LIMITATIONS



1. This report and its findings should be considered in relation to the terms of reference and objectives agreed between E3P and the Client as indicated in Section 1.2.
2. For the work, reliance has been placed on publicly available data obtained from the sources identified. The information is not necessarily exhaustive and further information relevant to the site may be available from other sources. When using the information it has been assumed it is correct. No attempt has been made to verify the information.
3. This report has been produced in accordance with current UK policy and legislative requirements for land and groundwater contamination which are enforced by the local authority and the Environment Agency. Liabilities associated with land contamination are complex and requires advice from legal professionals.
4. During the site walkover reasonable effort has been made to obtain an overview of the site conditions. However, during the site walkover no attempt has been made to enter areas of the site that are unsafe or present a risk to health and safety, are locked, barricaded, overgrown, or the location of the area has not be made known or accessible.
5. Access considerations, the presence of services and the activities being carried out on the site limited the locations where sampling locations could be installed and the techniques that could be used.
6. Site sensitivity assessments have been made based on available information at the time of writing and are ultimately for the decision of the regulatory authorities.
7. Where mention has been made to the identification of Japanese Knotweed and other invasive plant species and asbestos or asbestos-containing materials this is for indicative purposes only and do not constitute or replace full and proper surveys.
8. The executive summary, conclusions and recommendations sections of the report provide an overview and guidance only and should not be specifically relied upon without considering the context of the report in full.
9. E3P cannot be held responsible for any use of the report or its contents for any purpose other than that for which it was prepared. The copyright in this report and other plans and documents prepared by E3P is owned by them and no such plans or documents may be reproduced, published or adapted without written consent. Complete copies of this may, however, be made and distributed by the client as is expected in dealing with matters related to its commission. Should the client pass copies of the report to other parties for information, the whole report should be copied, but no professional liability or warranties shall be extended to other parties by E3P in this connection without their explicit written agreement there to by E3P.
10. New information, revised practices or changes in legislation may necessitate the re-interpretation of the report, in whole or in part.



APPENDIX II GLOSSARY



TERMS

AST	Above Ground Storage Tank
BGS	British Geological Survey
BSI	British Standards Institute
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CIEH	Chartered Institute of Environmental Health
CIRIA	Construction Industry Research Association
CLEA	Contaminated Land Exposure Assessment
CSM	Conceptual Site Model
DNAPL	Dense Non-Aqueous Phase Liquid (chlorinated solvents, PCB)
DWS	Drinking Water Standard
EA	Environment Agency
EQS	Environmental Quality Standard
GAC	General Assessment Criteria
GL	Ground Level
GSV	Gas Screening Value
HCV	Health Criteria Value
ICSM	Initial Conceptual Site Model
LNAPL	Light Non-Aqueous Phase Liquid (petrol, diesel, kerosene)
ND	Not Detected
LMRL	Lower Method Reporting Limit
NR	Not Recorded
PAH	Poly Aromatic Hydrocarbon
PCB	Poly-Chlorinated Biphenyl
PID	Photo Ionisation Detector
QA	Quality Assurance
SGV	Soil Guideline Value
SPH	Separate Phase Hydrocarbon
Sp.TPH (CWG)	Total Petroleum Hydrocarbon (Criteria Working Group)
SPT	Standard Penetration Test
SVOC	Semi Volatile Organic Compound
UST	Underground Storage Tank
VCCs	Vibro Concrete Columns
VOC	Volatile Organic Compound
WTE	Water Table Elevation

UNITS

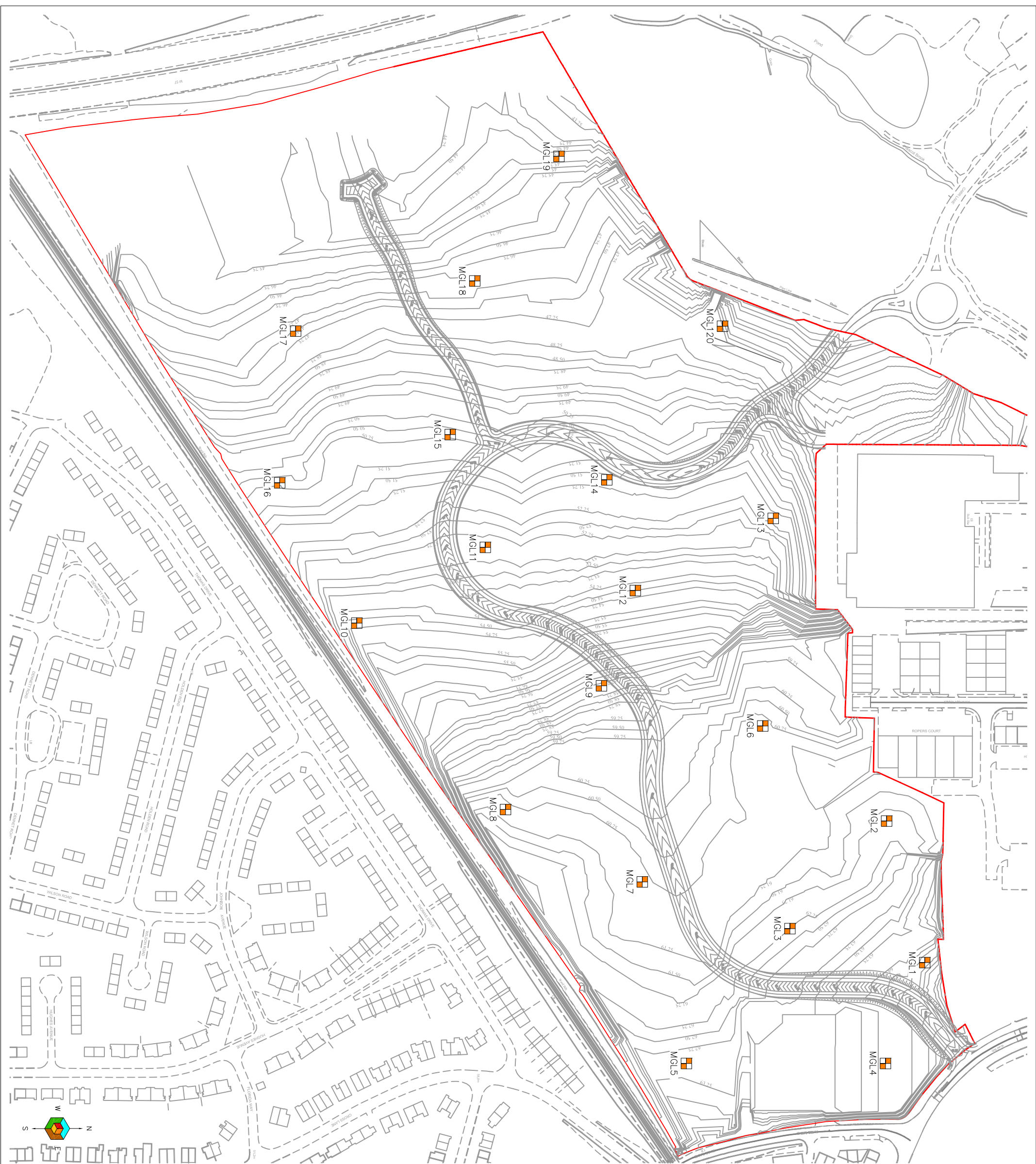
m	Metres
km	Kilometres
%	Percent
%v/v	Percent volume in air
mb	Milli Bars (atmospheric pressure)
l/hr	Litres per hour
µg/l	Micrograms per Litre (parts per billion)

ppb	Parts Per Billion
mg/kg	Milligrams per kilogram (parts per million)
ppm	Parts Per Million
mg/m ³	Milligram per metre cubed
m bgl	Metres Below Ground Level
m bcl	Metre Below Cover Level
mAOD	Metres Above Ordnance Datum (sea level)
kN/m ²	Kilo Newtons per metre squared
µm	Micro metre



APPENDIX III DRAWINGS





Approximate Location of Leachate Sample Taken From Made Ground

Notes:					

P1	R0	16-08-2015	Draft	CB	MD
Phase	Revision	Date	Issue	Drawn	Authorised
Client: Prescott Business Park			Job No: 10-021	Date: 18-08-2015	
			Drawing No: 032	Scale: 1:2500 @ A3	

Job Title: Pysnian Cables, Prescott	Drawing Title: Leachate Sampling Plan
-------------------------------------	---------------------------------------



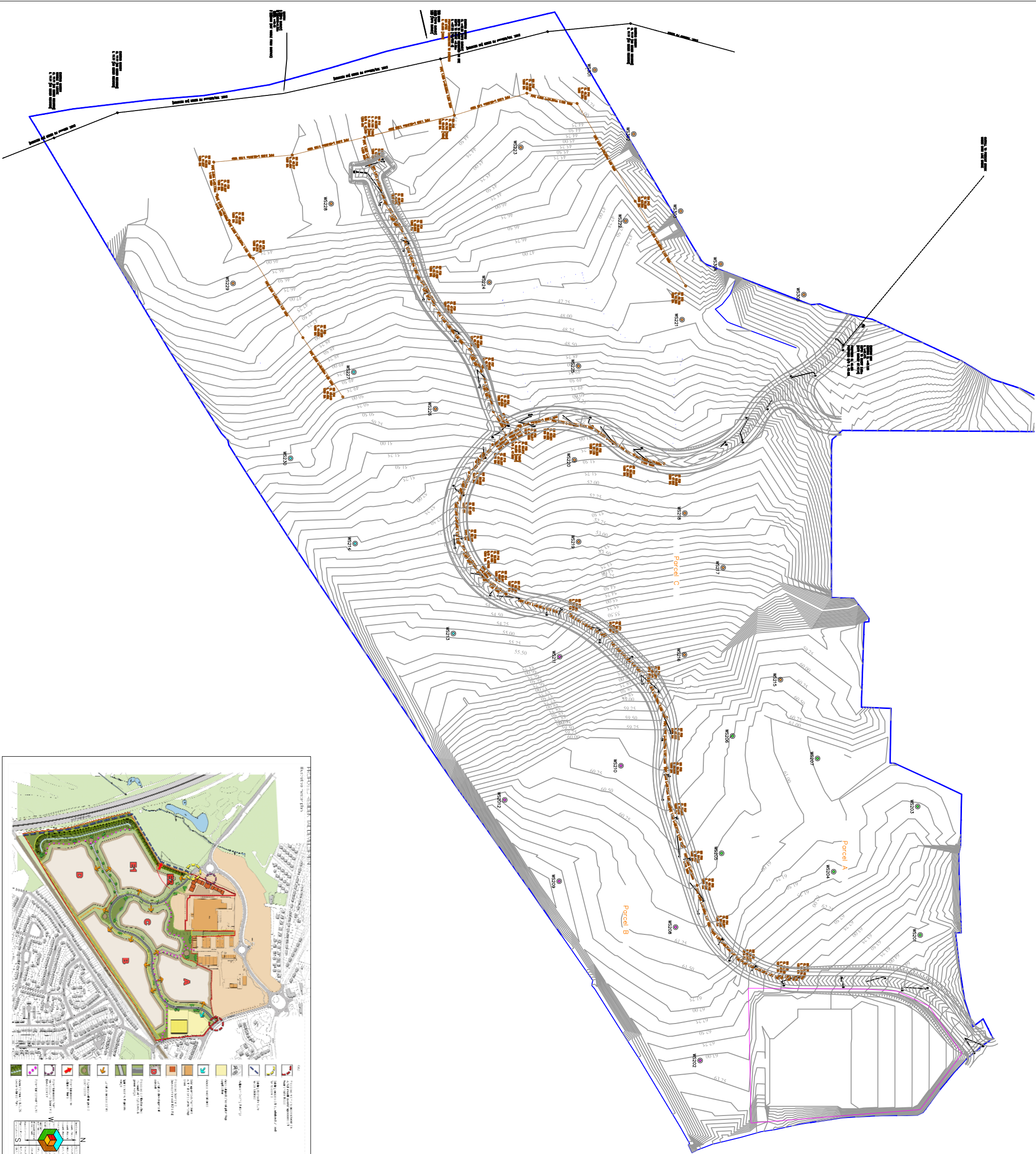
Environmental Energy Engineering Partnerships Ltd
City Helport & Business Centre
Eccles, Manchester, M30 7RU
Tel: 0161 707 9612
E-mail: info@e3p.co.uk
Website: www.e3p.co.uk

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Key:

Location Symbols

- WS201 Approximate Window Sample Probehole Location
- WS301 Approximate Window Sample Probehole Location (UU Land)
- WS201 Approximate Window Sample Probehole Location (25-01-2016)
- WS201 Approximate Window Sample Probehole Location (26-01-2016)
- WS201 Approximate Window Sample Probehole Location (27-01-2016)



Volumetrics Between OGL And Design Foundation To Masterplan 150k:14					
Drawn	Design	Volume		Drawing	
		Cut Material	Fill Material	Cut Material	Fill Material
4.4.16.14.14	63000	271710.000	271000.000	400.000	11700.000
				10000.000	63000
				2.000	1000

Notes:

P1	R1	12-02-2016	REVISION	CB	MD
P1	-	21-01-2016	DRAFT	JN	MD
Phase	Revision	Date	Issue	Drawn	Authorised

Client:	Job No:		Date:	
	10021		12-02-2016	
Job Title:	Drawing No:		Scale:	
	040		1:2500 @ A3	

Pyssmain Cables, Prescot	Drawing Title:	
	Supplementary Intrusive Investigation Plan	



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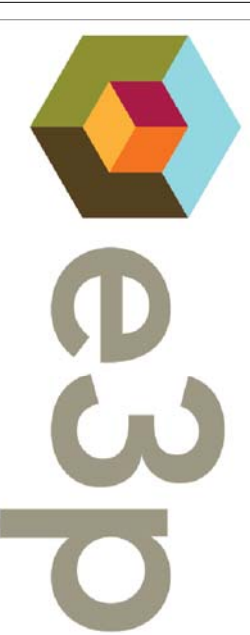


- Approximate Plate Load Test Location
- Approximate Dynamic Cone Penetrometer Test Location
- Approximate Hand Pit Location
- Approximate Plate Load Test Location (Unable to Investigate)
- Approximate Dynamic Cone Penetrometer Test Location (Unable to Investigate)

P1	R3	29-02-2016	Revision	CB	MD
P1	R2	22-12-2015	Revision	CB	MD
P1	R1	17-11-2015	Revision	CB	MD
P1	-	29-04-2015	Draft	CB	MD
Phase	Revision	Date	Issue	Drawn	Authorised

Client:	Job No:	Date:
Prescot Business Park	10-021	29-02-2016
Drawing No:	Scale:	
034	1:1500 @ A1	

Job Title:	Drawing Title:
Pyrsnian Cables, Prescot	Geo-Technical Testing Location Plan



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APPENDIX IV PHOTOGRAPHS





PLATE 1 – POST REMOVAL OF VEGETATION OF PARCEL C



PLATE 2 – REMOVAL OF VEGETATION STRIP IN PROGRESS





PLATE 3 –PRE-REMEDIATION LOOKING EAST FROM CENTER OF PARCEL C



**PLATE 4 - TURNOVER OF REMOVAL OF RELIC STRUCTURES IN UPPER EAST OF
PARCEL C**





**PLATE 5 – COMMENCEMENT OF REMEDIATION WITHIN UPPER AREA OF
PARCEL C**



PLATE 6 – TURNOVER AND REMOVAL OF RELIC STRUCTURES





PLATE 7 – REMOVAL OF CONCRETE BELOW GROUND STORAGE TANK



PLATE 8 – LARGE UST BEING BROKEN TO AID IN THE REMOVAL OF THE TANK





**PLATE 9 - LAST REMAINING AREA OF TURNOVER WITHIN UPPER PORTION OF
PARCEL C**



**PLATE 10 – REMEDIATION AND TURNOVER COMPLETE IN UPPER AREA OF
PARCEL C**





**PLATE 11 – SMALL RELIC FOUNDATIONS BEING REMOVED PRIOR TO
TURNOVER**



PLATE 12 – REMEDIATED SOILS BEING RE-GRADED TO FORMATION LEVELS





PLATE 13 – VIEW EAST FROM PARCEL C REMEDIATION COMPLETE



PLATE 14 – VIEW WEST OF LOWER PARCEL C WITH TURNOVER OF >1.50BGL COMPLETED TO NATURAL STRATUM





PLATE 15 – LOWER PARCEL C TURNOVER COMPLETE WITH SOILS BEING IMPORTED TO RAISE PARCEL



PLATE 16 – NORTHERN LOWER AREA OF PARCEL C WITH COMPOUND BEING CONSTRUCTED





PLATE 17 – LOWER PARCEL C AFTER REMEDIATION SITE RAISING IN PROGRESS



**PLATE 18 – PARCEL C SOUTHERN BOUNDARY TURNOVER IN PROGRESS
ADJACENT TO CONSTRUCTED SPINE ROAD**





PLATE 19 – VEGETATION STRIP OF EMBANKMENT DISSECTING PARCEL C



PLATE 20 – TURNOVER OF THE EMBANKMENT AFTER RETAINING STRUCTURES REMOVED





PLATE 21 – TURNOVER OF EMBANKMENT TO REDUCE THE SITE INTO ONE PLATEAUX



PLATE 22 – CONCRETE STOCKPILE LOCATED ON PARCEL C





PLATE 23 – THE CENTRAL SECTOR OF PARCEL C BLENDING THE TWO SITE LEVELS INTO ONE



PLATE 24 – PARCEL C IN DISTANCE WITH REMEDIATION COMPLETE TO FORMATION LEVEL



APPENDIX V VALIDATION CHEMICAL ANALYSIS





Stephanie Towers

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i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

e: reception@i2analytical.com

Analytical Report Number : 14-61115

Project / Site name:	Prysmian Cables, Prescott	Samples received on:	08/10/2014
Your job number:	10021	Samples instructed on:	08/10/2014
Your order number:	10021/860/ST	Analysis completed by:	15/10/2014
Report Issue Number:	1	Report issued on:	15/10/2014
Samples Analysed:	3 leachate samples - 26 soil samples		

Signed:

Organics Technical Manager
For & on behalf of i2 Analytical Ltd.

Signed:

Reporting Manager
For & on behalf of i2 Analytical Ltd.

Other office located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Analytical Report Number: 14-61115
Project / Site name: Prysmian Cables, Prescott
Your Order No: 10021/860/ST

Lab Sample Number	380006	380007	380008	380009	380010
Sample Reference	TP116	TP118	TP119	TP121	TP123
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.60	0.60	2.40	1.10	0.60
Date Sampled	02/10/2014	02/10/2014	02/10/2014	02/10/2014	02/10/2014
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	23	17
Total mass of sample received	kg	0.001	NONE	0.39	0.46

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	-	-	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthylene	mg/kg	0.1	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.1	MCERTS	-	-	-	-	-
Fluorene	mg/kg	0.1	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.1	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.1	MCERTS	-	-	-	-	-
Fluoranthene	mg/kg	0.1	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.1	MCERTS	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.1	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.1	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	-	-	-	-	-
-----------------------------	-------	-----	--------	---	---	---	---	---

Petroleum Hydrocarbons

TPH (C5 - C6)	mg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH (C6 - C8)	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C8 - C10)	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C10 - C12)	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH (C12 - C16)	mg/kg	1	NONE	26	7.0	< 1.0	< 1.0	40
TPH (C16 - C21)	mg/kg	1	NONE	120	16	< 1.0	< 1.0	450
TPH (C21 - C35)	mg/kg	1	NONE	380	33	< 1.0	< 1.0	2900



Environmental Science

Analytical Report Number: 14-61115

Project / Site name: Prysmian Cables, Prescot

Your Order No: 10021/860/ST

Lab Sample Number				380006	380007	380008	380009	380010
Sample Reference				TP116	TP118	TP119	TP121	TP123
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	0.60	2.40	1.10	0.60
Date Sampled				02/10/2014	02/10/2014	02/10/2014	02/10/2014	02/10/2014
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		

VOCs

Chloromethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	-
Chloroethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	-
Bromomethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	-
Vinyl Chloride	µg/kg	1	ISO 17025	-	< 1.0	-	-	-
Trichlorofluoromethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	-
1,1-Dichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	< 1.0	-	-	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	-	-
2,2-Dichloropropane	µg/kg	1	NONE	-	< 1.0	-	-	-
Trichloromethane	µg/kg	1	MCERTS	-	< 1.0	-	-	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	-	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	-	-
1,1-Dichloropropene	µg/kg	1	NONE	-	< 1.0	-	-	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	< 1.0	-	-	-
Benzene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
Tetrachloromethane	µg/kg	1	MCERTS	-	< 1.0	-	-	-
1,2-Dichloropropane	µg/kg	1	MCERTS	-	< 1.0	-	-	-
Trichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
Dibromomethane	µg/kg	1	MCERTS	-	< 1.0	-	-	-
Bromodichloromethane	µg/kg	1	NONE	-	< 1.0	-	-	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	-	-	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	-	-	-
Toluene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	-	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	< 1.0	-	-	-
Dibromochloromethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	-
Tetrachloroethene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	-
Chlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
1,1,1,2-Tetrachloroethane	µg/kg	1	NONE	-	< 1.0	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
p & m-Xylene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
Styrene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
Tribromomethane	µg/kg	1	MCERTS	-	< 1.0	-	-	-
o-Xylene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	-	-	-
Isopropylbenzene	µg/kg	1	NONE	-	< 1.0	-	-	-
Bromobenzene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
n-Propylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	-	-
2-Chlorotoluene	µg/kg	1	NONE	-	< 1.0	-	-	-
4-Chlorotoluene	µg/kg	1	NONE	-	< 1.0	-	-	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	-	-
tert-Butylbenzene	µg/kg	1	NONE	-	< 1.0	-	-	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	-	-
sec-Butylbenzene	µg/kg	1	NONE	-	< 1.0	-	-	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	< 1.0	-	-	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	< 1.0	-	-	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
Butylbenzene	µg/kg	1	NONE	-	< 1.0	-	-	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	< 1.0	-	-	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
Hexachlorobutadiene	µg/kg	1	NONE	-	< 1.0	-	-	-
1,2,3-Trichlorobenzene	µg/kg	1	NONE	-	< 1.0	-	-	-



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Environmental Science

Analytical Report Number: 14-61115

Project / Site name: Prysmian Cables, Prescot

Your Order No: 10021/860/ST

Lab Sample Number				380006	380007	380008	380009	380010
Sample Reference				TP116	TP118	TP119	TP121	TP123
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	0.60	2.40	1.10	0.60
Date Sampled				02/10/2014	02/10/2014	02/10/2014	02/10/2014	02/10/2014
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

SVOCs

Aniline	mg/kg	0.1	NONE	-	< 0.1	-	< 0.1	< 0.1
Phenol	mg/kg	0.2	ISO 17025	-	< 0.2	-	< 0.2	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	-	< 0.2	-	< 0.2	< 0.2
Isophorone	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3
Naphthalene	mg/kg	0.1	MCERTS	-	< 0.10	-	< 0.10	< 0.10
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	-	< 0.1	-	< 0.1	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	< 0.1	-	< 0.1	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	-	0.3	-	0.4	0.5
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1
Acenaphthylene	mg/kg	0.1	MCERTS	-	< 0.10	-	< 0.10	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	-	< 0.10	-	< 0.10	0.33
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	< 0.3	-	< 0.3	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	< 0.2
Fluorene	mg/kg	0.1	MCERTS	-	< 0.10	-	< 0.10	0.25
Azobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3
Phenanthrene	mg/kg	0.1	MCERTS	-	1.5	-	0.29	2.8
Anthracene	mg/kg	0.1	MCERTS	-	0.22	-	< 0.10	0.54
Carbazole	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3
Fluoranthene	mg/kg	0.1	MCERTS	-	2.1	-	0.23	4.7
Pyrene	mg/kg	0.1	MCERTS	-	1.7	-	0.24	4.5
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	< 0.3	-	< 0.3	< 0.3
Benzo(a)anthracene	mg/kg	0.1	MCERTS	-	0.97	-	< 0.10	2.1
Chrysene	mg/kg	0.05	MCERTS	-	0.79	-	< 0.05	2.8
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	-	0.63	-	< 0.10	2.7
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	-	0.41	-	< 0.10	1.4
Benzo(a)pyrene	mg/kg	0.1	MCERTS	-	0.44	-	< 0.10	< 0.10
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	-	< 0.10	-	< 0.10	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	-	< 0.10	-	< 0.10	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	< 0.05

Analytical Report Number: 14-61115
 Project / Site name: Prysmian Cables, Prescott
 Your Order No: 10021/860/ST

Lab Sample Number				380011	380012	380013	380014	380015
Sample Reference				TP125	TP127	TP128	TP128	TP143
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.55	1.90	0.30	1.70	0.70
Date Sampled				02/10/2014	02/10/2014	02/10/2014	02/10/2014	02/10/2014
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	17	21	12	7.3	17
Total mass of sample received	kg	0.001	NONE	0.48	0.54	0.49	0.52	0.38

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	-	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	0.47
Acenaphthylene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.10
Fluorene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.10
Phenanthrene	mg/kg	0.1	MCERTS	-	-	-	-	1.0
Anthracene	mg/kg	0.1	MCERTS	-	-	-	-	0.18
Fluoranthene	mg/kg	0.1	MCERTS	-	-	-	-	0.22
Pyrene	mg/kg	0.1	MCERTS	-	-	-	-	0.26
Benzo(a)anthracene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.10
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.10
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.10
Benzo(a)pyrene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.10
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	-	-	-	-	2.14
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Petroleum Hydrocarbons

TPH (C5 - C6)	mg/kg	1	NONE	< 1.0	-	-	< 1.0	< 1.0
TPH (C6 - C8)	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	< 0.1
TPH (C8 - C10)	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	< 0.1
TPH (C10 - C12)	mg/kg	10	NONE	< 10	-	-	< 10	11
TPH (C12 - C16)	mg/kg	1	NONE	15	-	-	< 1.0	51
TPH (C16 - C21)	mg/kg	1	NONE	72	-	-	< 1.0	95
TPH (C21 - C35)	mg/kg	1	NONE	310	-	-	< 1.0	120



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Environmental Science

Analytical Report Number: 14-61115

Project / Site name: Prysmian Cables, Prescott

Your Order No: 10021/860/ST

Lab Sample Number				380011	380012	380013	380014	380015
Sample Reference				TP125	TP127	TP128	TP128	TP143
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.55	1.90	0.30	1.70	0.70
Date Sampled				02/10/2014	02/10/2014	02/10/2014	02/10/2014	02/10/2014
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
Chloroethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
Bromomethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
Vinyl Chloride	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
Trichlorofluoromethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
1,1-Dichloroethene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
2,2-Dichloropropane	µg/kg	1	NONE	-	< 1.0	< 1.0	-	-
Trichloromethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,1-Dichloropropene	µg/kg	1	NONE	-	< 1.0	< 1.0	-	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	< 1.0	< 1.0	-	-
Benzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Tetrachloromethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,2-Dichloropropane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Trichloroethene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Dibromomethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Bromodichloromethane	µg/kg	1	NONE	-	< 1.0	< 1.0	-	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
Toluene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
Dibromochloromethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
Tetrachloroethene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
Chlorobenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,1,1,2-Tetrachloroethane	µg/kg	1	NONE	-	< 1.0	< 1.0	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
p & m-Xylene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Styrene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Tribromomethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
o-Xylene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Isopropylbenzene	µg/kg	1	NONE	-	< 1.0	< 1.0	-	-
Bromobenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
n-Propylbenzene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
2-Chlorotoluene	µg/kg	1	NONE	-	< 1.0	< 1.0	-	-
4-Chlorotoluene	µg/kg	1	NONE	-	< 1.0	< 1.0	-	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
tert-Butylbenzene	µg/kg	1	NONE	-	< 1.0	< 1.0	-	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
sec-Butylbenzene	µg/kg	1	NONE	-	< 1.0	< 1.0	-	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Butylbenzene	µg/kg	1	NONE	-	< 1.0	< 1.0	-	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Hexachlorobutadiene	µg/kg	1	NONE	-	< 1.0	< 1.0	-	-
1,2,3-Trichlorobenzene	µg/kg	1	NONE	-	< 1.0	< 1.0	-	-



Environmental Science

Analytical Report Number: 14-61115

Project / Site name: Prysmian Cables, Prescot

Your Order No: 10021/860/ST

Lab Sample Number				380011	380012	380013	380014	380015
Sample Reference				TP125	TP127	TP128	TP128	TP143
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.55	1.90	0.30	1.70	0.70
Date Sampled				02/10/2014	02/10/2014	02/10/2014	02/10/2014	02/10/2014
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	< 0.1	< 0.1	-	-
Phenol	mg/kg	0.2	ISO 17025	-	< 0.2	< 0.2	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	< 0.2	< 0.2	-	-
Isophorone	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
Naphthalene	mg/kg	0.1	MCERTS	-	0.27	0.89	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	< 0.1	< 0.1	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	< 0.1	< 0.1	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	0.5	0.8	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	-
Acenaphthylene	mg/kg	0.1	MCERTS	-	< 0.10	< 0.10	-	-
Acenaphthene	mg/kg	0.1	MCERTS	-	< 0.10	2.8	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	< 0.2	1.4	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	< 0.3	< 0.3	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
Fluorene	mg/kg	0.1	MCERTS	-	< 0.10	1.7	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
Phenanthrene	mg/kg	0.1	MCERTS	-	0.54	10	-	-
Anthracene	mg/kg	0.1	MCERTS	-	< 0.10	1.4	-	-
Carbazole	mg/kg	0.3	MCERTS	-	< 0.3	0.5	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	< 0.3	0.8	-	-
Fluoranthene	mg/kg	0.1	MCERTS	-	0.65	5.7	-	-
Pyrene	mg/kg	0.1	MCERTS	-	0.68	5.3	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	< 0.3	< 0.3	-	-
Benzo(a)anthracene	mg/kg	0.1	MCERTS	-	0.54	2.8	-	-
Chrysene	mg/kg	0.05	MCERTS	-	0.67	3.4	-	-
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	-	0.75	3.1	-	-
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	-	0.35	1.3	-	-
Benzo(a)pyrene	mg/kg	0.1	MCERTS	-	0.43	2.2	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	-	< 0.10	0.89	-	-
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	-	< 0.10	0.37	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	0.92	-	-

Analytical Report Number: 14-61115
 Project / Site name: Prysmian Cables, Prescott
 Your Order No: 10021/860/ST

Lab Sample Number	380016	380017	380018	380019	380020
Sample Reference	TP144	TP145	TP146	TP147	TP130
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.75	0.20	0.60	0.30	1.20
Date Sampled	02/10/2014	02/10/2014	02/10/2014	02/10/2014	02/10/2014
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	16	13
Total mass of sample received	kg	0.001	NONE	0.40	0.55

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	-	Not-detected

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Acenaphthylene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Acenaphthene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Fluorene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Phenanthrene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Anthracene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Fluoranthene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Pyrene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Benzo(a)anthracene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Benzo(a)pyrene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	-	-	< 0.10	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	-	-	< 1.60	-	-
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Petroleum Hydrocarbons

TPH (C5 - C6)	mg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	-
TPH (C6 - C8)	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	-
TPH (C8 - C10)	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	-
TPH (C10 - C12)	mg/kg	10	NONE	< 10	< 10	< 10	< 10	-
TPH (C12 - C16)	mg/kg	1	NONE	43	< 1.0	< 1.0	13	-
TPH (C16 - C21)	mg/kg	1	NONE	85	< 1.0	< 1.0	58	-
TPH (C21 - C35)	mg/kg	1	NONE	110	< 1.0	< 1.0	270	-



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Environmental Science

Analytical Report Number: 14-61115

Project / Site name: Prysmian Cables, Prescott

Your Order No: 10021/860/ST

Lab Sample Number				380016	380017	380018	380019	380020
Sample Reference				TP144	TP145	TP146	TP147	TP130
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.75	0.20	0.60	0.30	1.20
Date Sampled				02/10/2014	02/10/2014	02/10/2014	02/10/2014	02/10/2014
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Chloroethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Vinyl Chloride	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Trichlorofluoromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
1,1-Dichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
2,2-Dichloropropane	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
Trichloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	1.0	-
1,1-Dichloropropene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
Benzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Trichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Dibromomethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Bromodichloromethane	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Toluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Tetrachloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1,1,2-Tetrachloroethane	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Styrene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Tribromomethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
o-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Isopropylbenzene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
Bromobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
2-Chlorotoluene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
4-Chlorotoluene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
tert-Butylbenzene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
sec-Butylbenzene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Butylbenzene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Hexachlorobutadiene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
1,2,3-Trichlorobenzene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-



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Environmental Science

Analytical Report Number: 14-61115

Project / Site name: Prysmian Cables, Prescott

Your Order No: 10021/860/ST

Lab Sample Number				380016	380017	380018	380019	380020
Sample Reference				TP144	TP145	TP146	TP147	TP130
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.75	0.20	0.60	0.30	1.20
Date Sampled				02/10/2014	02/10/2014	02/10/2014	02/10/2014	02/10/2014
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	< 0.1
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	-	< 0.2	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	-	< 0.2	< 0.2
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
Naphthalene	mg/kg	0.1	MCERTS	0.25	-	-	< 0.10	< 0.10
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	0.7	-	-	< 0.1	0.4
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	< 0.1
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	-	-	< 0.10	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	-	-	< 0.10	< 0.10
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	0.5	-	-	< 0.2	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	-	< 0.3	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	< 0.2
Fluorene	mg/kg	0.1	MCERTS	< 0.10	-	-	< 0.10	< 0.10
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
Phenanthrene	mg/kg	0.1	MCERTS	0.92	-	-	< 0.10	< 0.10
Anthracene	mg/kg	0.1	MCERTS	0.18	-	-	< 0.10	< 0.10
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
Fluoranthene	mg/kg	0.1	MCERTS	0.17	-	-	< 0.10	< 0.10
Pyrene	mg/kg	0.1	MCERTS	0.20	-	-	< 0.10	< 0.10
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	-	< 0.3	< 0.3
Benzo(a)anthracene	mg/kg	0.1	MCERTS	< 0.10	-	-	< 0.10	< 0.10
Chrysene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	-	-	< 0.10	< 0.10
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	-	-	< 0.10	< 0.10
Benzo(a)pyrene	mg/kg	0.1	MCERTS	< 0.10	-	-	< 0.10	< 0.10
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	< 0.10	-	-	< 0.10	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	-	-	< 0.10	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	< 0.05

Analytical Report Number: 14-61115
 Project / Site name: Prysmian Cables, Prescott
 Your Order No: 10021/860/ST

Lab Sample Number				380021	380022	380023	380024	380025
Sample Reference				TP131	TP133	TP136	TP101	TP103
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.90	3.20	2.50	2.20	2.60
Date Sampled				02/10/2014	02/10/2014	02/10/2014	02/10/2014	02/10/2014
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		
Stone Content				%	0.1	NONE	15	< 0.1
Moisture Content				%	N/A	NONE	14	19
Total mass of sample received				kg	0.001	NONE	0.43	0.46
							0.40	0.54
								0.50

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	Chrysotile- Insulation lagging	-	-
Asbestos in Soil	Type	N/A	ISO 17025	-	-	Detected	Not-detected	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthylene	mg/kg	0.1	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.1	MCERTS	-	-	-	-	-
Fluorene	mg/kg	0.1	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.1	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.1	MCERTS	-	-	-	-	-
Fluoranthene	mg/kg	0.1	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.1	MCERTS	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.1	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.1	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	-	-	-	-	-
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Petroleum Hydrocarbons

TPH (C5 - C6)	mg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH (C6 - C8)	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C8 - C10)	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C10 - C12)	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH (C12 - C16)	mg/kg	1	NONE	33	19	14	< 1.0	< 1.0
TPH (C16 - C21)	mg/kg	1	NONE	190	38	52	< 1.0	< 1.0
TPH (C21 - C35)	mg/kg	1	NONE	800	79	140	< 1.0	< 1.0



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Environmental Science

Analytical Report Number: 14-61115

Project / Site name: Prysmian Cables, Prescot

Your Order No: 10021/860/ST

Lab Sample Number				380021	380022	380023	380024	380025
Sample Reference				TP131	TP133	TP136	TP101	TP103
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.90	3.20	2.50	2.20	2.60
Date Sampled				02/10/2014	02/10/2014	02/10/2014	02/10/2014	02/10/2014
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Chloroethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Bromomethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Vinyl Chloride	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Trichlorofluoromethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
1,1,1-Dichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
2,2-Dichloropropane	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
Trichloromethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1-Dichloropropene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
Benzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Tetrachloromethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2-Dichloropropane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Trichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Dibromomethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Bromodichloromethane	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Toluene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Dibromochloromethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Tetrachloroethene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Chlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1,1,2-Tetrachloroethane	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
Ethylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
p & m-Xylene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Styrene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Tribromomethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
o-Xylene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Isopropylbenzene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
Bromobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
n-Propylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
2-Chlorotoluene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
4-Chlorotoluene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
tert-Butylbenzene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
sec-Butylbenzene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Butylbenzene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Hexachlorobutadiene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
1,2,3-Trichlorobenzene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-



Environmental Science

Analytical Report Number: 14-61115

Project / Site name: Prysmian Cables, Prescot

Your Order No: 10021/860/ST

Lab Sample Number				380021	380022	380023	380024	380025
Sample Reference				TP131	TP133	TP136	TP101	TP103
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.90	3.20	2.50	2.20	2.60
Date Sampled				02/10/2014	02/10/2014	02/10/2014	02/10/2014	02/10/2014
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	< 0.1	< 0.1	< 0.1	-
Phenol	mg/kg	0.2	ISO 17025	-	< 0.2	< 0.2	< 0.2	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	< 0.1	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	< 0.2	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	< 0.2	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	< 0.1	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	< 0.2	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	< 0.1	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	< 0.3	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	< 0.3	-
4-Methylphenol	mg/kg	0.2	NONE	-	< 0.2	< 0.2	< 0.2	-
Isophorone	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	< 0.2	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	< 0.3	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	< 0.3	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	< 0.3	-
Naphthalene	mg/kg	0.1	MCERTS	-	< 0.10	< 0.10	< 0.10	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	< 0.3	-
4-Chloroaniline	mg/kg	0.1	NONE	-	< 0.1	< 0.1	< 0.1	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	< 0.1	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	< 0.1	< 0.1	< 0.1	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	< 0.1	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	< 0.2	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	0.5	< 0.1	< 0.1	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	< 0.1	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	< 0.1	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	< 0.1	-
Acenaphthylene	mg/kg	0.1	MCERTS	-	< 0.10	< 0.10	< 0.10	-
Acenaphthene	mg/kg	0.1	MCERTS	-	< 0.10	< 0.10	< 0.10	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	< 0.2	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	< 0.2	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	< 0.3	< 0.3	< 0.3	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	< 0.2	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	< 0.2	-
Fluorene	mg/kg	0.1	MCERTS	-	< 0.10	< 0.10	< 0.10	-
Azobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	< 0.3	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	< 0.2	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	< 0.3	-
Phenanthrene	mg/kg	0.1	MCERTS	-	0.55	0.48	< 0.10	-
Anthracene	mg/kg	0.1	MCERTS	-	0.11	< 0.10	< 0.10	-
Carbazole	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	< 0.3	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	< 0.2	-
Anthraquinone	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	< 0.3	-
Fluoranthene	mg/kg	0.1	MCERTS	-	0.56	0.97	< 0.10	-
Pyrene	mg/kg	0.1	MCERTS	-	0.52	0.76	< 0.10	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	< 0.3	< 0.3	< 0.3	-
Benzo(a)anthracene	mg/kg	0.1	MCERTS	-	0.43	0.68	< 0.10	-
Chrysene	mg/kg	0.05	MCERTS	-	0.48	0.91	< 0.05	-
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	-	0.37	0.91	< 0.10	-
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	-	0.21	0.48	< 0.10	-
Benzo(a)pyrene	mg/kg	0.1	MCERTS	-	0.25	0.30	< 0.10	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	-	< 0.10	< 0.10	< 0.10	-
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	-	< 0.10	< 0.10	< 0.10	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-

Analytical Report Number: 14-61115
Project / Site name: Prysmian Cables, Prescott
Your Order No: 10021/860/ST

Lab Sample Number				380026	380027	380028	380029	380030
Sample Reference				TP105	TP107	TP107	TP108	TP111
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	1.10	2.50	0.10	0.20
Date Sampled				02/10/2014	02/10/2014	02/10/2014	02/10/2014	02/10/2014
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	13	22	15	19	10
Total mass of sample received	kg	0.001	NONE	0.47	0.45	0.52	0.47	0.49

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	-	-	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	0.70
Acenaphthylene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.10
Fluorene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.10
Phenanthrene	mg/kg	0.1	MCERTS	-	-	-	-	0.59
Anthracene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.10
Fluoranthene	mg/kg	0.1	MCERTS	-	-	-	-	0.48
Pyrene	mg/kg	0.1	MCERTS	-	-	-	-	0.41
Benzo(a)anthracene	mg/kg	0.1	MCERTS	-	-	-	-	0.37
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	0.37
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	-	-	-	-	0.42
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	-	-	-	-	0.15
Benzo(a)pyrene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.10
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	-	-	-	-	3.49
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Petroleum Hydrocarbons

TPH (C5 - C6)	mg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
TPH (C6 - C8)	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
TPH (C8 - C10)	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
TPH (C10 - C12)	mg/kg	10	NONE	< 10	-	< 10	< 10	-
TPH (C12 - C16)	mg/kg	1	NONE	21	-	< 1.0	36	-
TPH (C16 - C21)	mg/kg	1	NONE	150	-	< 1.0	450	-
TPH (C21 - C35)	mg/kg	1	NONE	290	-	< 1.0	1300	-



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Environmental Science

Analytical Report Number: 14-61115

Project / Site name: Prysmian Cables, Prescott

Your Order No: 10021/860/ST

Lab Sample Number				380026	380027	380028	380029	380030
Sample Reference				TP105	TP107	TP107	TP108	TP111
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	1.10	2.50	0.10	0.20
Date Sampled				02/10/2014	02/10/2014	02/10/2014	02/10/2014	02/10/2014
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	-
Chloroethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	-
Bromomethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	-
Vinyl Chloride	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	-
Trichlorofluoromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	-
1,1-Dichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
2,2-Dichloropropane	µg/kg	1	NONE	< 1.0	< 1.0	-	-	-
Trichloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
1,1-Dichloropropene	µg/kg	1	NONE	< 1.0	< 1.0	-	-	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	< 1.0	-	-	-
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
Trichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
Dibromomethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
Bromodichloromethane	µg/kg	1	NONE	< 1.0	< 1.0	-	-	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	-
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	-
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	-
Tetrachloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	-
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
1,1,1,2-Tetrachloroethane	µg/kg	1	NONE	< 1.0	< 1.0	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
Styrene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
Tribromomethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
o-Xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
1,1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
Isopropylbenzene	µg/kg	1	NONE	< 1.0	< 1.0	-	-	-
Bromobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	-
2-Chlorotoluene	µg/kg	1	NONE	< 1.0	< 1.0	-	-	-
4-Chlorotoluene	µg/kg	1	NONE	< 1.0	< 1.0	-	-	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	-
tert-Butylbenzene	µg/kg	1	NONE	< 1.0	< 1.0	-	-	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	-
sec-Butylbenzene	µg/kg	1	NONE	< 1.0	< 1.0	-	-	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
Butylbenzene	µg/kg	1	NONE	< 1.0	< 1.0	-	-	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	-	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
Hexachlorobutadiene	µg/kg	1	NONE	< 1.0	< 1.0	-	-	-
1,2,3-Trichlorobenzene	µg/kg	1	NONE	< 1.0	< 1.0	-	-	-



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Environmental Science

Analytical Report Number: 14-61115

Project / Site name: Prysmian Cables, Prescot

Your Order No: 10021/860/ST

Lab Sample Number				380026	380027	380028	380029	380030
Sample Reference				TP105	TP107	TP107	TP108	TP111
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	1.10	2.50	0.10	0.20
Date Sampled				02/10/2014	02/10/2014	02/10/2014	02/10/2014	02/10/2014
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	< 0.1	-	-	-
Phenol	mg/kg	0.2	ISO 17025	< 0.2	< 0.2	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	< 0.2	-	-	-
Isophorone	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
Naphthalene	mg/kg	0.1	MCERTS	< 0.10	0.25	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	< 0.1	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	< 0.1	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	0.9	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	-
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	-	-	-
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	0.4	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	< 0.3	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
Fluorene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
Phenanthrene	mg/kg	0.1	MCERTS	0.76	0.69	-	-	-
Anthracene	mg/kg	0.1	MCERTS	0.18	0.10	-	-	-
Carbazole	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
Fluoranthene	mg/kg	0.1	MCERTS	0.99	0.18	-	-	-
Pyrene	mg/kg	0.1	MCERTS	0.93	0.19	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	< 0.3	-	-	-
Benzo(a)anthracene	mg/kg	0.1	MCERTS	0.54	< 0.10	-	-	-
Chrysene	mg/kg	0.05	MCERTS	0.52	< 0.05	-	-	-
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	0.41	< 0.10	-	-	-
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	0.23	< 0.10	-	-	-
Benzo(a)pyrene	mg/kg	0.1	MCERTS	0.38	< 0.10	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-

Analytical Report Number: 14-61115
 Project / Site name: Prysmian Cables, Prescott
 Your Order No: 10021/860/ST

Lab Sample Number				380031				
Sample Reference				TP113				
Sample Number				None Supplied				
Depth (m)				0.75				
Date Sampled				02/10/2014				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	18				
Moisture Content	%	N/A	NONE	18				
Total mass of sample received	kg	0.001	NONE	0.46				

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Amosite- Insulation lagging,				
Asbestos in Soil	Type	N/A	ISO 17025	Detected				

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-				
Acenaphthylene	mg/kg	0.1	MCERTS	-				
Acenaphthene	mg/kg	0.1	MCERTS	-				
Fluorene	mg/kg	0.1	MCERTS	-				
Phenanthrene	mg/kg	0.1	MCERTS	-				
Anthracene	mg/kg	0.1	MCERTS	-				
Fluoranthene	mg/kg	0.1	MCERTS	-				
Pyrene	mg/kg	0.1	MCERTS	-				
Benzo(a)anthracene	mg/kg	0.1	MCERTS	-				
Chrysene	mg/kg	0.05	MCERTS	-				
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	-				
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	-				
Benzo(a)pyrene	mg/kg	0.1	MCERTS	-				
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	-				
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	-				
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-				

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	-				
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Petroleum Hydrocarbons

TPH (C5 - C6)	mg/kg	1	NONE	< 1.0				
TPH (C6 - C8)	mg/kg	0.1	NONE	< 0.1				
TPH (C8 - C10)	mg/kg	0.1	NONE	< 0.1				
TPH (C10 - C12)	mg/kg	10	NONE	< 10				
TPH (C12 - C16)	mg/kg	1	NONE	6.8				
TPH (C16 - C21)	mg/kg	1	NONE	12				
TPH (C21 - C35)	mg/kg	1	NONE	56				



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Environmental Science

Analytical Report Number: 14-61115

Project / Site name: Prysmian Cables, Prescott

Your Order No: 10021/860/ST

Lab Sample Number				380031					
Sample Reference				TP113					
Sample Number				None Supplied					
Depth (m)				0.75					
Date Sampled				02/10/2014					
Time Taken				None Supplied					
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status						
VOCs									
Chloromethane	µg/kg	1	ISO 17025	-					
Chloroethane	µg/kg	1	ISO 17025	-					
Bromomethane	µg/kg	1	ISO 17025	-					
Vinyl Chloride	µg/kg	1	ISO 17025	-					
Trichlorofluoromethane	µg/kg	1	ISO 17025	-					
1,1-Dichloroethene	µg/kg	1	MCERTS	-					
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-					
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-					
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-					
1,1-Dichloroethane	µg/kg	1	MCERTS	-					
2,2-Dichloropropane	µg/kg	1	NONE	-					
Trichloromethane	µg/kg	1	MCERTS	-					
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-					
1,2-Dichloroethane	µg/kg	1	MCERTS	-					
1,1-Dichloropropene	µg/kg	1	NONE	-					
Trans-1,2-dichloroethene	µg/kg	1	NONE	-					
Benzene	µg/kg	1	MCERTS	-					
Tetrachloromethane	µg/kg	1	MCERTS	-					
1,2-Dichloropropane	µg/kg	1	MCERTS	-					
Trichloroethene	µg/kg	1	MCERTS	-					
Dibromomethane	µg/kg	1	MCERTS	-					
Bromodichloromethane	µg/kg	1	NONE	-					
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-					
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-					
Toluene	µg/kg	1	MCERTS	-					
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-					
1,3-Dichloropropane	µg/kg	1	ISO 17025	-					
Dibromochloromethane	µg/kg	1	ISO 17025	-					
Tetrachloroethene	µg/kg	1	MCERTS	-					
1,2-Dibromoethane	µg/kg	1	ISO 17025	-					
Chlorobenzene	µg/kg	1	MCERTS	-					
1,1,1,2-Tetrachloroethane	µg/kg	1	NONE	-					
Ethylbenzene	µg/kg	1	MCERTS	-					
p & m-Xylene	µg/kg	1	MCERTS	-					
Styrene	µg/kg	1	MCERTS	-					
Tribromomethane	µg/kg	1	MCERTS	-					
o-Xylene	µg/kg	1	MCERTS	-					
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-					
Isopropylbenzene	µg/kg	1	NONE	-					
Bromobenzene	µg/kg	1	MCERTS	-					
n-Propylbenzene	µg/kg	1	ISO 17025	-					
2-Chlorotoluene	µg/kg	1	NONE	-					
4-Chlorotoluene	µg/kg	1	NONE	-					
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-					
tert-Butylbenzene	µg/kg	1	NONE	-					
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-					
sec-Butylbenzene	µg/kg	1	NONE	-					
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-					
p-Isopropyltoluene	µg/kg	1	ISO 17025	-					
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-					
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-					
Butylbenzene	µg/kg	1	NONE	-					
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-					
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-					
Hexachlorobutadiene	µg/kg	1	NONE	-					
1,2,3-Trichlorobenzene	µg/kg	1	NONE	-					

Analytical Report Number: 14-61115
 Project / Site name: Prysmian Cables, Prescot
 Your Order No: 10021/860/ST

Lab Sample Number				380031				
Sample Reference				TP113				
Sample Number				None Supplied				
Depth (m)				0.75				
Date Sampled				02/10/2014				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-				
Phenol	mg/kg	0.2	ISO 17025	-				
2-Chlorophenol	mg/kg	0.1	MCERTS	-				
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-				
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-				
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-				
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-				
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-				
2-Methylphenol	mg/kg	0.3	MCERTS	-				
Hexachloroethane	mg/kg	0.05	MCERTS	-				
Nitrobenzene	mg/kg	0.3	MCERTS	-				
4-Methylphenol	mg/kg	0.2	NONE	-				
Isophorone	mg/kg	0.2	MCERTS	-				
2-Nitrophenol	mg/kg	0.3	MCERTS	-				
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-				
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-				
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-				
Naphthalene	mg/kg	0.1	MCERTS	-				
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-				
4-Chloroaniline	mg/kg	0.1	NONE	-				
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-				
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-				
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-				
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-				
2-Methylnaphthalene	mg/kg	0.1	NONE	-				
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-				
Dimethylphthalate	mg/kg	0.1	MCERTS	-				
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-				
Acenaphthylene	mg/kg	0.1	MCERTS	-				
Acenaphthene	mg/kg	0.1	MCERTS	-				
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-				
Dibenzofuran	mg/kg	0.2	MCERTS	-				
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-				
Diethyl phthalate	mg/kg	0.2	MCERTS	-				
4-Nitroaniline	mg/kg	0.2	MCERTS	-				
Fluorene	mg/kg	0.1	MCERTS	-				
Azobenzene	mg/kg	0.3	MCERTS	-				
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-				
Hexachlorobenzene	mg/kg	0.3	MCERTS	-				
Phenanthrene	mg/kg	0.1	MCERTS	-				
Anthracene	mg/kg	0.1	MCERTS	-				
Carbazole	mg/kg	0.3	MCERTS	-				
Dibutyl phthalate	mg/kg	0.2	MCERTS	-				
Anthraquinone	mg/kg	0.3	MCERTS	-				
Fluoranthene	mg/kg	0.1	MCERTS	-				
Pyrene	mg/kg	0.1	MCERTS	-				
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-				
Benzo(a)anthracene	mg/kg	0.1	MCERTS	-				
Chrysene	mg/kg	0.05	MCERTS	-				
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	-				
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	-				
Benzo(a)pyrene	mg/kg	0.1	MCERTS	-				
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	-				
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	-				
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-				



Analytical Report Number: 14-61115
Project / Site name: Prysmian Cables, Prescott

Your Order No: 10021/860/ST

Lab Sample Number	380032	380033	380034		
Sample Reference	TP107	TP109	TP111		
Sample Number	None Supplied	None Supplied	None Supplied		
Depth (m)	1.10	1.40	1.40		
Date Sampled	02/10/2014	02/10/2014	02/10/2014		
Time Taken	None Supplied	None Supplied	None Supplied		
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status		

Petroleum Hydrocarbons

TPH (C5 - C6)	µg/l	10	NONE	< 10	< 10	< 10		
TPH (C8 - C10)	µg/l	10	NONE	< 10	< 10	< 10		
TPH (C10 - C12)	µg/l	10	NONE	< 10	< 10	< 10		
TPH (C12 - C16)	µg/l	10	NONE	< 10	< 10	< 10		
TPH (C16 - C21)	µg/l	10	NONE	< 10	< 10	< 10		
TPH (C21 - C35)	µg/l	10	NONE	< 10	< 10	< 10		

VOCs

Chloromethane	µg/l	1	NONE	-	< 1.0	< 1.0		
Chloroethane	µg/l	1	NONE	-	< 1.0	< 1.0		
Bromomethane	µg/l	1	NONE	-	< 1.0	< 1.0		
Vinyl Chloride	µg/l	1	NONE	-	< 1.0	< 1.0		
1,1-dichloroethene	µg/l	1	NONE	-	< 1.0	< 1.0		
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/l	1	NONE	-	< 1.0	< 1.0		
Cis-1,2-dichloroethene	µg/l	1	NONE	-	< 1.0	< 1.0		
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	NONE	-	< 1.0	< 1.0		
1,1-dichloroethane	µg/l	1	NONE	-	< 1.0	< 1.0		
2,2-Dichloropropane	µg/l	1	NONE	-	< 1.0	< 1.0		
Trichloromethane	µg/l	1	NONE	-	< 1.0	< 1.0		
1,1,1-Trichloroethane	µg/l	1	NONE	-	< 1.0	< 1.0		
1,2-dichloroethane	µg/l	1	NONE	-	< 1.0	< 1.0		
1,1-Dichloropropene	µg/l	1	NONE	-	< 1.0	< 1.0		
Trans-1,2-dichloroethene	µg/l	1	NONE	-	< 1.0	< 1.0		
Benzene	µg/l	1	NONE	-	< 1.0	< 1.0		
Tetrachloromethane	µg/l	1	NONE	-	< 1.0	< 1.0		
1,2-dichloropropane	µg/l	1	NONE	-	< 1.0	< 1.0		
Trichloroethene	µg/l	1	NONE	-	< 1.0	< 1.0		
Dibromomethane	µg/l	1	NONE	-	< 1.0	< 1.0		
Bromodichloromethane	µg/l	1	NONE	-	< 1.0	< 1.0		
Cis-1,3-dichloropropene	µg/l	1	NONE	-	< 1.0	< 1.0		
Trans-1,3-dichloropropene	µg/l	1	NONE	-	< 1.0	< 1.0		
Toluene	µg/l	1	NONE	-	< 1.0	< 1.0		
1,1,2-Trichloroethane	µg/l	1	NONE	-	< 1.0	< 1.0		
1,3-Dichloropropane	µg/l	1	NONE	-	< 1.0	< 1.0		
Dibromochloromethane	µg/l	1	NONE	-	< 1.0	< 1.0		
Tetrachloroethene	µg/l	1	NONE	-	< 1.0	< 1.0		
1,2-Dibromoethane	µg/l	1	NONE	-	< 1.0	< 1.0		
Chlorobenzene	µg/l	1	NONE	-	< 1.0	< 1.0		
1,1,1,2-Tetrachloroethane	µg/l	1	NONE	-	< 1.0	< 1.0		
Ethylbenzene	µg/l	1	NONE	-	< 1.0	< 1.0		
p & m-xylene	µg/l	1	NONE	-	< 1.0	< 1.0		
Styrene	µg/l	1	NONE	-	< 1.0	< 1.0		
Tribromomethane	µg/l	1	NONE	-	< 1.0	< 1.0		
o-xylene	µg/l	1	NONE	-	< 1.0	< 1.0		
1,1,2,2-Tetrachloroethane	µg/l	1	NONE	-	< 1.0	< 1.0		
Isopropylbenzene	µg/l	1	NONE	-	< 1.0	< 1.0		
Bromobenzene	µg/l	1	NONE	-	< 1.0	< 1.0		
N-Propylbenzene	µg/l	1	NONE	-	< 1.0	< 1.0		
2-Chlorotoluene	µg/l	1	NONE	-	< 1.0	< 1.0		
4-Chlorotoluene	µg/l	1	NONE	-	< 1.0	< 1.0		
1,3,5-Trimethylbenzene	µg/l	1	NONE	-	< 1.0	< 1.0		
Tert-Butylbenzene	µg/l	1	NONE	-	< 1.0	< 1.0		
1,2,4-Trimethylbenzene	µg/l	1	NONE	-	< 1.0	< 1.0		
Sec-Butylbenzene	µg/l	1	NONE	-	< 1.0	< 1.0		
1,3-dichlorobenzene	µg/l	1	NONE	-	< 1.0	< 1.0		
P-Isopropyltoluene	µg/l	1	NONE	-	< 1.0	< 1.0		
1,2-dichlorobenzene	µg/l	1	NONE	-	< 1.0	< 1.0		
1,4-dichlorobenzene	µg/l	1	NONE	-	< 1.0	< 1.0		
Butylbenzene	µg/l	1	NONE	-	< 1.0	< 1.0		
1,2-Dibromo-3-chloropropane	µg/l	1	NONE	-	< 1.0	< 1.0		
1,2,4-Trichlorobenzene	µg/l	1	NONE	-	< 1.0	< 1.0		
Hexachlorobutadiene	µg/l	0.1	NONE	-	< 0.1	< 0.1		
1,2,3-Trichlorobenzene	µg/l	1	NONE	-	< 1.0	< 1.0		



Analytical Report Number: 14-61115
Project / Site name: Prysmian Cables, Prescott

Your Order No: 10021/860/ST

Lab Sample Number	380032	380033	380034		
Sample Reference	TP107	TP109	TP111		
Sample Number	None Supplied	None Supplied	None Supplied		
Depth (m)	1.10	1.40	1.40		
Date Sampled	02/10/2014	02/10/2014	02/10/2014		
Time Taken	None Supplied	None Supplied	None Supplied		
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status		

SVOCs

Aniline	µg/l	0.05	NONE	-	< 0.05	< 0.05		
Phenol	µg/l	0.05	NONE	-	< 0.05	< 0.05		
2-Chlorophenol	µg/l	0.05	NONE	-	< 0.05	< 0.05		
Bis(2-chloroethyl)ether	µg/l	0.05	NONE	-	< 0.05	< 0.05		
1,3-Dichlorobenzene	µg/l	0.05	NONE	-	< 0.05	< 0.05		
1,2-Dichlorobenzene	µg/l	0.05	NONE	-	< 0.05	< 0.05		
1,4-Dichlorobenzene	µg/l	0.05	NONE	-	< 0.05	< 0.05		
Bis(2-chloroisopropyl)ether	µg/l	0.05	NONE	-	< 0.05	< 0.05		
2-Methylphenol	µg/l	0.05	NONE	-	< 0.05	< 0.05		
Hexachloroethane	µg/l	0.05	NONE	-	< 0.05	< 0.05		
Nitrobenzene	µg/l	0.05	NONE	-	< 0.05	< 0.05		
4-Methylphenol	µg/l	0.05	NONE	-	< 0.05	< 0.05		
Isophorone	µg/l	0.05	NONE	-	< 0.05	< 0.05		
2-Nitrophenol	µg/l	0.05	NONE	-	< 0.05	< 0.05		
2,4-Dimethylphenol	µg/l	0.05	NONE	-	< 0.05	< 0.05		
Bis(2-chloroethoxy)methane	µg/l	0.05	NONE	-	< 0.05	< 0.05		
1,2,4-Trichlorobenzene	µg/l	0.05	NONE	-	< 0.05	< 0.05		
Naphthalene	µg/l	0.01	NONE	-	< 0.01	< 0.01		
2,4-Dichlorophenol	µg/l	0.05	NONE	-	< 0.05	< 0.05		
4-Chloroaniline	µg/l	0.05	NONE	-	< 0.05	< 0.05		
Hexachlorobutadiene	µg/l	0.05	NONE	-	< 0.05	< 0.05		
4-Chloro-3-methylphenol	µg/l	0.05	NONE	-	< 0.05	< 0.05		
2,4,6-Trichlorophenol	µg/l	0.05	NONE	-	< 0.05	< 0.05		
2,4,5-Trichlorophenol	µg/l	0.05	NONE	-	< 0.05	< 0.05		
2-Methylnaphthalene	µg/l	0.05	NONE	-	< 0.05	< 0.05		
2-Chloronaphthalene	µg/l	0.05	NONE	-	< 0.05	< 0.05		
Dimethylphthalate	µg/l	0.05	NONE	-	< 0.05	< 0.05		
2,6-Dinitrotoluene	µg/l	0.05	NONE	-	< 0.05	< 0.05		
Acenaphthylene	µg/l	0.01	NONE	-	< 0.01	< 0.01		
Acenaphthene	µg/l	0.01	NONE	-	< 0.01	< 0.01		
2,4-Dinitrotoluene	µg/l	0.05	NONE	-	< 0.05	< 0.05		
Dibenzofuran	µg/l	0.05	NONE	-	< 0.05	< 0.05		
4-Chlorophenyl phenyl ether	µg/l	0.05	NONE	-	< 0.05	< 0.05		
Diethyl phthalate	µg/l	0.05	NONE	-	< 0.05	< 0.05		
4-Nitroaniline	µg/l	0.05	NONE	-	< 0.05	< 0.05		
Fluorene	µg/l	0.01	NONE	-	< 0.01	< 0.01		
Azobenzene	µg/l	0.05	NONE	-	< 0.05	< 0.05		
Bromophenyl phenyl ether	µg/l	0.05	NONE	-	< 0.05	< 0.05		
Hexachlorobenzene	µg/l	0.02	NONE	-	< 0.02	< 0.02		
Phenanthrene	µg/l	0.01	NONE	-	< 0.01	< 0.01		
Anthracene	µg/l	0.01	NONE	-	< 0.01	< 0.01		
Carbazole	µg/l	0.05	NONE	-	< 0.05	< 0.05		
Dibutyl phthalate	µg/l	0.05	NONE	-	< 0.05	< 0.05		
Anthraquinone	µg/l	0.05	NONE	-	< 0.05	< 0.05		
Fluoranthene	µg/l	0.01	NONE	-	< 0.01	< 0.01		
Pyrene	µg/l	0.01	NONE	-	< 0.01	< 0.01		
Butyl benzyl phthalate	µg/l	0.05	NONE	-	< 0.05	< 0.05		
Benzo(a)anthracene	µg/l	0.01	NONE	-	< 0.01	< 0.01		
Chrysene	µg/l	0.01	NONE	-	< 0.01	< 0.01		
Benzo(b)fluoranthene	µg/l	0.01	NONE	-	< 0.01	< 0.01		
Benzo(k)fluoranthene	µg/l	0.01	NONE	-	< 0.01	< 0.01		
Benzo(a)pyrene	µg/l	0.01	NONE	-	< 0.01	< 0.01		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	-	< 0.01	< 0.01		
Dibenz(a,h)anthracene	µg/l	0.01	NONE	-	< 0.01	< 0.01		
Benzo(ghi)perylene	µg/l	0.01	NONE	-	< 0.01	< 0.01		

Analytical Report Number : 14-61115

Project / Site name: Prysmian Cables, Prescott

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and topsoil/loam soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content

of a sample is calculated as the % weight of the stones not passing a 2 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
380006	TP116	None Supplied	0.60	Brown sandy topsoil with gravel.
380007	TP118	None Supplied	0.60	Brown sandy clay.
380008	TP119	None Supplied	2.40	Light brown sand.
380009	TP121	None Supplied	1.10	Grey clay and sand.
380010	TP123	None Supplied	0.60	Brown clay and sand with gravel.
380011	TP125	None Supplied	0.55	Brown clay and topsoil with gravel and vegetation.
380012	TP127	None Supplied	1.90	Grey clay and sand.
380013	TP128	None Supplied	0.30	Red topsoil and sand with brick.
380014	TP128	None Supplied	1.70	Light brown sandy clay.
380015	TP143	None Supplied	0.70	Black clay and gravel.
380016	TP144	None Supplied	0.75	Black clay and gravel with vegetation.
380017	TP145	None Supplied	0.20	Brown topsoil and sand with gravel and vegetation.
380018	TP146	None Supplied	0.60	Brown topsoil and clay with vegetation.
380019	TP147	None Supplied	0.30	Light brown sandy topsoil with rubble.
380020	TP130	None Supplied	1.20	Grey clay.
380021	TP131	None Supplied	1.90	Black topsoil and sand with gravel and stones.
380022	TP133	None Supplied	3.20	Grey clay and sand with gravel.
380023	TP136	None Supplied	2.50	Grey gravelly sand.
380024	TP101	None Supplied	2.20	Light brown sand.
380025	TP103	None Supplied	2.60	Light brown clay and sand.
380026	TP105	None Supplied	0.60	Brown topsoil and clay with gravel.
380027	TP107	None Supplied	1.10	Grey clay.
380028	TP107	None Supplied	2.50	Light brown clay and sand.
380029	TP108	None Supplied	0.10	Brown topsoil and clay with vegetation.
380030	TP111	None Supplied	0.20	Brown topsoil and clay with gravel.
380031	TP113	None Supplied	0.75	Brown topsoil and clay with gravel and stones.

Analytical Report Number : 14-61115

Project / Site name: Prysmian Cables, Prescott

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
Semi-volatile organic compounds in leachate	Determination of semi-volatile organic compounds in leachate by extraction in dichloromethane followed by GC-MS.	In-house method based on USEPA 8270	L070-PL	D	NONE
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Stones not passing through a 10 mm sieve is determined gravimetrically and reported as a percentage of the dry weight. Sample results are not corrected for the stone content of the sample.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
TPH in (Water)	Determination of dichloromethane extractable hydrocarbons in leachate by GC-MS.	In-house method	L070-PL	W	NONE
Volatile organic compounds in leachate		In-house method based on USEPA8260	L036-UK		NONE
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073S-PL	W	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

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Analytical Report Number : 15-74636

Project / Site name:	Prescot	Samples received on:	02/07/2015
Your job number:	10021	Samples instructed on:	03/07/2015
Your order number:	10021/1984/MW	Analysis completed by:	09/07/2015
Report Issue Number:	1	Report issued on:	09/07/2015
Samples Analysed:	20 leachate samples		

Signed: _____

Rexona Rahman
Reporting Manager
For & on behalf of i2 Analytical Ltd.

Signed: _____

Emma Winter
Assistant Reporting Manager
For & on behalf of i2 Analytical Ltd.

Other office located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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Analytical Report Number: 15-74636

Project / Site name: Prescott

Your Order No: 10021/1984/MW

Lab Sample Number	461146	461147	461148	461149	461150
Sample Reference	MGL 1	MGL 2	MGL 3	MGL 4	MGL 5
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	30/06/2015	30/06/2015	30/06/2015	30/06/2015	30/06/2015
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status		

General Inorganics

pH	pH Units	N/A	ISO 17025	7.3	7.2	7.7	7.5	7.6
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	23	< 10

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10	< 10
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Speciated PAHs

Naphthalene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Total PAH

Total EPA-16 PAHs	µg/l	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
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Heavy Metals / Metalloids

Arsenic (dissolved)	µg/l	1.1	ISO 17025	8.9	1.8	6.6	6.3	2.8
Cadmium (dissolved)	µg/l	0.08	ISO 17025	0.58	0.15	0.67	< 0.08	0.81
Chromium (hexavalent)	µg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chromium (dissolved)	µg/l	0.4	ISO 17025	2.9	3.0	1.2	3.7	2.2
Copper (dissolved)	µg/l	0.7	ISO 17025	52	24	120	17	55
Lead (dissolved)	µg/l	1	ISO 17025	3.2	2.4	2.4	< 1.0	19
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nickel (dissolved)	µg/l	0.3	ISO 17025	4.2	1.0	1.6	1.8	1.8
Selenium (dissolved)	µg/l	4	ISO 17025	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Zinc (dissolved)	µg/l	0.4	ISO 17025	7.4	3.3	7.5	2.3	10



Analytical Report Number: 15-74636

Project / Site name: Prescott

Your Order No: 10021/1984/MW

Lab Sample Number	461146	461147	461148	461149	461150
Sample Reference	MGL 1	MGL 2	MGL 3	MGL 4	MGL 5
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	30/06/2015	30/06/2015	30/06/2015	30/06/2015	30/06/2015
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status		

Monoaromatics

Benzene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10

Petroleum Hydrocarbons

TPH1 (C10 - C40)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C5 - C6	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C6 - C8	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C8 - C10	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C5 - C7	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C7 - C8	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C8 - C10	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10



Analytical Report Number: 15-74636

Project / Site name: Prescott

Your Order No: 10021/1984/MW

Lab Sample Number	461151	461152	461153	461154	461155
Sample Reference	MGL 6	MGL 7	MGL 8	MGL 9	MGL 10
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	30/06/2015	30/06/2015	30/06/2015	30/06/2015	30/06/2015
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status		

General Inorganics

pH	pH Units	N/A	ISO 17025	7.5	7.6	7.7	8.6	7.9
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10	< 10

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10	< 10
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Speciated PAHs

Naphthalene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Total PAH

Total EPA-16 PAHs	µg/l	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
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Heavy Metals / Metalloids

Arsenic (dissolved)	µg/l	1.1	ISO 17025	7.0	8.7	8.7	17	7.1
Cadmium (dissolved)	µg/l	0.08	ISO 17025	0.13	0.49	9.6	0.59	0.73
Chromium (hexavalent)	µg/l	5	NONE	< 5.0	< 5.0	9.2	< 5.0	< 5.0
Chromium (dissolved)	µg/l	0.4	ISO 17025	0.7	2.2	9.9	4.4	4.6
Copper (dissolved)	µg/l	0.7	ISO 17025	62	47	180	80	74
Lead (dissolved)	µg/l	1	ISO 17025	4.9	7.6	15	13	11
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nickel (dissolved)	µg/l	0.3	ISO 17025	0.8	< 0.3	1.2	2.1	0.7
Selenium (dissolved)	µg/l	4	ISO 17025	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Zinc (dissolved)	µg/l	0.4	ISO 17025	7.5	9.4	21	12	14



Analytical Report Number: 15-74636

Project / Site name: Prescott

Your Order No: 10021/1984/MW

Lab Sample Number	461151	461152	461153	461154	461155
Sample Reference	MGL 6	MGL 7	MGL 8	MGL 9	MGL 10
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	30/06/2015	30/06/2015	30/06/2015	30/06/2015	30/06/2015
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status		

Monoaromatics

Benzene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10

Petroleum Hydrocarbons

TPH1 (C10 - C40)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C5 - C6	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C6 - C8	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C8 - C10	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C5 - C7	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C7 - C8	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C8 - C10	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10



Analytical Report Number: 15-74636

Project / Site name: Prescott

Your Order No: 10021/1984/MW

Lab Sample Number	461156	461157	461158	461159	461160
Sample Reference	MGL 11	MGL 12	MGL 13	MGL 14	MGL 15
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	30/06/2015	30/06/2015	01/07/2015	01/07/2015	01/07/2015
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status		

General Inorganics

pH	pH Units	N/A	ISO 17025	8.0	8.4	9.8	10.0	8.3
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	11	< 10	< 10

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10	< 10
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Speciated PAHs

Naphthalene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Total PAH

Total EPA-16 PAHs	µg/l	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
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Heavy Metals / Metalloids

Arsenic (dissolved)	µg/l	1.1	ISO 17025	11	11	9.2	12	1.9
Cadmium (dissolved)	µg/l	0.08	ISO 17025	0.47	1.2	< 0.08	0.13	0.17
Chromium (hexavalent)	µg/l	5	NONE	< 5.0	< 5.0	12	< 5.0	< 5.0
Chromium (dissolved)	µg/l	0.4	ISO 17025	5.1	3.8	17	11	1.8
Copper (dissolved)	µg/l	0.7	ISO 17025	130	130	48	160	18
Lead (dissolved)	µg/l	1	ISO 17025	5.4	12	1.3	23	1.8
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nickel (dissolved)	µg/l	0.3	ISO 17025	2.0	1.9	10	3.9	1.7
Selenium (dissolved)	µg/l	4	ISO 17025	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Zinc (dissolved)	µg/l	0.4	ISO 17025	13	27	2.7	19	2.6



Analytical Report Number: 15-74636

Project / Site name: Prescott

Your Order No: 10021/1984/MW

Lab Sample Number	461156	461157	461158	461159	461160
Sample Reference	MGL 11	MGL 12	MGL 13	MGL 14	MGL 15
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	30/06/2015	30/06/2015	01/07/2015	01/07/2015	01/07/2015
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status		

Monoaromatics

Benzene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10

Petroleum Hydrocarbons

TPH1 (C10 - C40)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C5 - C6	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C6 - C8	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C8 - C10	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C5 - C7	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C7 - C8	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C8 - C10	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10



Analytical Report Number: 15-74636

Project / Site name: Prescott

Your Order No: 10021/1984/MW

Lab Sample Number	461161	461162	461163	461164	461165
Sample Reference	MGL 16	MGL 17	MGL 18	MGL 19	MGL 20
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	01/07/2015	01/07/2015	01/07/2015	01/07/2015	01/07/2015
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status		

General Inorganics

pH	pH Units	N/A	ISO 17025	8.3	7.9	7.8	7.8	7.6
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10	< 10

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10	< 10
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Speciated PAHs

Naphthalene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Total PAH

Total EPA-16 PAHs	µg/l	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
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Heavy Metals / Metalloids

Arsenic (dissolved)	µg/l	1.1	ISO 17025	5.6	13	5.4	< 1.1	< 1.1
Cadmium (dissolved)	µg/l	0.08	ISO 17025	0.11	0.23	1.3	1.7	0.40
Chromium (hexavalent)	µg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chromium (dissolved)	µg/l	0.4	ISO 17025	9.9	3.4	1.3	1.3	1.3
Copper (dissolved)	µg/l	0.7	ISO 17025	39	79	38	9.8	9.3
Lead (dissolved)	µg/l	1	ISO 17025	< 1.0	6.7	7.1	1.2	< 1.0
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nickel (dissolved)	µg/l	0.3	ISO 17025	1.9	1.4	1.7	0.5	1.1
Selenium (dissolved)	µg/l	4	ISO 17025	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Zinc (dissolved)	µg/l	0.4	ISO 17025	2.5	7.4	22	2.7	2.9



Analytical Report Number: 15-74636

Project / Site name: Prescott

Your Order No: 10021/1984/MW

Lab Sample Number	461161	461162	461163	461164	461165
Sample Reference	MGL 16	MGL 17	MGL 18	MGL 19	MGL 20
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	01/07/2015	01/07/2015	01/07/2015	01/07/2015	01/07/2015
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status		

Monoaromatics

Benzene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10

Petroleum Hydrocarbons

TPH1 (C10 - C40)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C5 - C6	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C6 - C8	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C8 - C10	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C5 - C7	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C7 - C8	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C8 - C10	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10



Analytical Report Number : 15-74636

Project / Site name: Prescott

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
BTEX and MTBE in leachates	Determination of BTEX and MTBE in leachates by headspace GC-MS.	In-house method based on USEPA8260	L073W-PL	W	NONE
Hexavalent chromium in leachate	Determination of hexavalent chromium in leachate by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	NONE
Metals by ICP-OES in leachate	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Monohydric phenols in leachate	Determination of phenols in leachate by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
pH in leachate	Determination of pH in leachate by electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L005-PL	W	ISO 17025
Speciated EPA-16 PAHs in leachate	Determination of PAH compounds in leachate by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L070-PL	W	NONE
Total cyanide in leachate	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
TPH1 (Leachates)	Determination of dichloromethane extractable hydrocarbons in leachate by GC-MS.	In-house method	L070-PL	W	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.



Mike Whittaker

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Environmental Science

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e: reception@i2analytical.com

Analytical Report Number : 16-14370

Project / Site name:	Prescot	Samples received on:	22/03/2016
Your job number:	10-021	Samples instructed on:	31/03/2016
Your order number:	10021-3410-MW	Analysis completed by:	06/04/2016
Report Issue Number:	1	Report issued on:	06/04/2016
Samples Analysed:	8 leachate samples		

Signed: _____

Reporting Manager
For & on behalf of i2 Analytical Ltd.

Signed: _____

Assistant Reporting Manager
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :	soils	- 4 weeks from reporting
	leachates	- 2 weeks from reporting
	waters	- 2 weeks from reporting
	asbestos	- 6 months from reporting

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Analytical Report Number: 16-14370

Project / Site name: Prescot

Your Order No: 10021-3410-MW

Lab Sample Number				555464	555465	555466	555467	555468
Sample Reference				WS 215	WS 216	WS 218	WS 219	WS 220
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.80	3.40	2.50	3.70	2.40
Date Sampled				17/03/2016	17/03/2016	17/03/2016	17/03/2016	17/03/2016
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)				Units	Limit of detection	Accreditation Status		

General Inorganics

pH	pH Units	N/A	ISO 17025	7.4	7.7	7.7	7.7	7.3
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10	< 10

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10	< 10
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Speciated PAHs

Naphthalene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Total PAH

Total EPA-16 PAHs	µg/l	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
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Heavy Metals / Metalloids

Arsenic (dissolved)	µg/l	1.1	ISO 17025	< 1.1	7.5	4.7	16	12
Cadmium (dissolved)	µg/l	0.08	ISO 17025	0.25	0.67	0.21	0.19	1.1
Chromium (hexavalent)	µg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chromium (dissolved)	µg/l	0.4	ISO 17025	0.5	< 0.4	3.7	5.5	3.3
Copper (dissolved)	µg/l	0.7	ISO 17025	8.7	56	28	56	35
Lead (dissolved)	µg/l	1	ISO 17025	< 1.0	< 1.0	1.9	6.5	5.0
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nickel (dissolved)	µg/l	0.3	ISO 17025	6.0	4.1	1.7	0.8	2.0
Selenium (dissolved)	µg/l	4	ISO 17025	< 4.0	< 4.0	< 4.0	4.1	< 4.0
Zinc (dissolved)	µg/l	0.4	ISO 17025	68	55	13	20	22



Analytical Report Number: 16-14370

Project / Site name: Prescot

Your Order No: 10021-3410-MW

Lab Sample Number				555464	555465	555466	555467	555468
Sample Reference				WS 215	WS 216	WS 218	WS 219	WS 220
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.80	3.40	2.50	3.70	2.40
Date Sampled				17/03/2016	17/03/2016	17/03/2016	17/03/2016	17/03/2016
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status					

Monoaromatics

Benzene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10

Petroleum Hydrocarbons

TPH1 (C10 - C40)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C5 - C6	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C6 - C8	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C8 - C10	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C5 - C7	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C7 - C8	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C8 - C10	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10



Analytical Report Number: 16-14370

Project / Site name: Prescot

Your Order No: 10021-3410-MW

Lab Sample Number				555469	555470	555471		
Sample Reference				WS 221	WS 223	WS 225		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				1.80	1.60	1.20		
Date Sampled				17/03/2016	17/03/2016	17/03/2016		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status					

General Inorganics

pH	pH Units	N/A	ISO 17025	7.3	7.6	7.8		
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10		

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	< 10	< 10		
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Speciated PAHs

Naphthalene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Acenaphthylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Acenaphthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Fluorene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Phenanthrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Benzo(a)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Chrysene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Benzo(b)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Benzo(k)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Benzo(a)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		

Total PAH

Total EPA-16 PAHs	µg/l	0.2	NONE	< 0.2	< 0.2	< 0.2		
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Heavy Metals / Metalloids

Arsenic (dissolved)	µg/l	1.1	ISO 17025	5.0	4.3	23		
Cadmium (dissolved)	µg/l	0.08	ISO 17025	1.5	< 0.08	0.71		
Chromium (hexavalent)	µg/l	5	NONE	< 5.0	< 5.0	< 5.0		
Chromium (dissolved)	µg/l	0.4	ISO 17025	3.8	< 0.4	< 0.4		
Copper (dissolved)	µg/l	0.7	ISO 17025	52	36	150		
Lead (dissolved)	µg/l	1	ISO 17025	19	11	6.7		
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5	< 0.5	< 0.5		
Nickel (dissolved)	µg/l	0.3	ISO 17025	6.2	1.0	3.8		
Selenium (dissolved)	µg/l	4	ISO 17025	< 4.0	8.0	75		
Zinc (dissolved)	µg/l	0.4	ISO 17025	130	26	< 0.4		



Analytical Report Number: 16-14370

Project / Site name: Prescott

Your Order No: 10021-3410-MW

Lab Sample Number				555469	555470	555471		
Sample Reference				WS 221	WS 223	WS 225		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				1.80	1.60	1.20		
Date Sampled				17/03/2016	17/03/2016	17/03/2016		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status					

Monoaromatics

Benzene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0		
Toluene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0		
Ethylbenzene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0		
p & m-xylene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0		
o-xylene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0		
MTBE (Methyl Tertiary Butyl Ether)	µg/l	10	NONE	< 10	< 10	< 10		

Petroleum Hydrocarbons

TPH1 (C10 - C40)	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C5 - C6	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C6 - C8	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C8 - C10	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C5 - C7	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C7 - C8	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C8 - C10	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10		



Analytical Report Number : 16-14370

Project / Site name: Prescott

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
BTEX and MTBE in leachates (Monoaromatics)	Determination of BTEX and MTBE in leachates by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	NONE
Hexavalent chromium in leachate	Determination of hexavalent chromium in leachate by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	NONE
Metals by ICP-OES in leachate	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Monohydric phenols in leachate	Determination of phenols in leachate by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
pH in leachate	Determination of pH in leachate by electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L005-PL	W	ISO 17025
Speciated EPA-16 PAHs in leachate	Determination of PAH compounds in leachate by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L070-PL	W	NONE
Total cyanide in leachate	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
TPH1 (Leachates)	Determination of dichloromethane extractable hydrocarbons in leachate by GC-MS.	In-house method	L070-PL	W	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

APPENDIX VI GEOTECHNICAL TESTING CERTIFICATES





Vertical Deformation Test-Equivalent CBR Value

In Accordance with BS1377: Part 9:1990

Site Name:	Prescot	Test Date:	28/06/2015
Site Ref:	10021	Type of Kentledge:	13 Tonne Excavator
Test No.:	PC CBR101	Test Depth (m bgl):	GL
Plate Diameter (mm)	450	Easting:	N/A
Maximum Applied Pressure (kN/m²):	370.09	Northing:	N/A
Maximum Deformation (mm):	-6.28	Weather:	Dry
Strata Description:	6F2		



Equivalent CBR Value of 10%

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
J. James	S. Towers	09/06/2015	M. Dyer	09/06/2015



Vertical Deformation Test-Equivalent CBR Value

In Accordance with BS1377: Part 9:1990

Site Name:	Prescot	Test Date:	24/06/2016
Site Ref:	10021	Type of Kentledge:	13 Tonne Excavator
Test No.:	PACBR102	Test Depth (m bgl):	GL
Plate Diameter (mm)	450	Easting:	N/A
Maximum Applied Pressure (kN/m ²):	370.09	Northing:	N/A
Maximum Deformation (mm):	-4.71	Weather:	Sunny
Strata Description:	6F2		



Equivalent CBR Value of 13%

Comments

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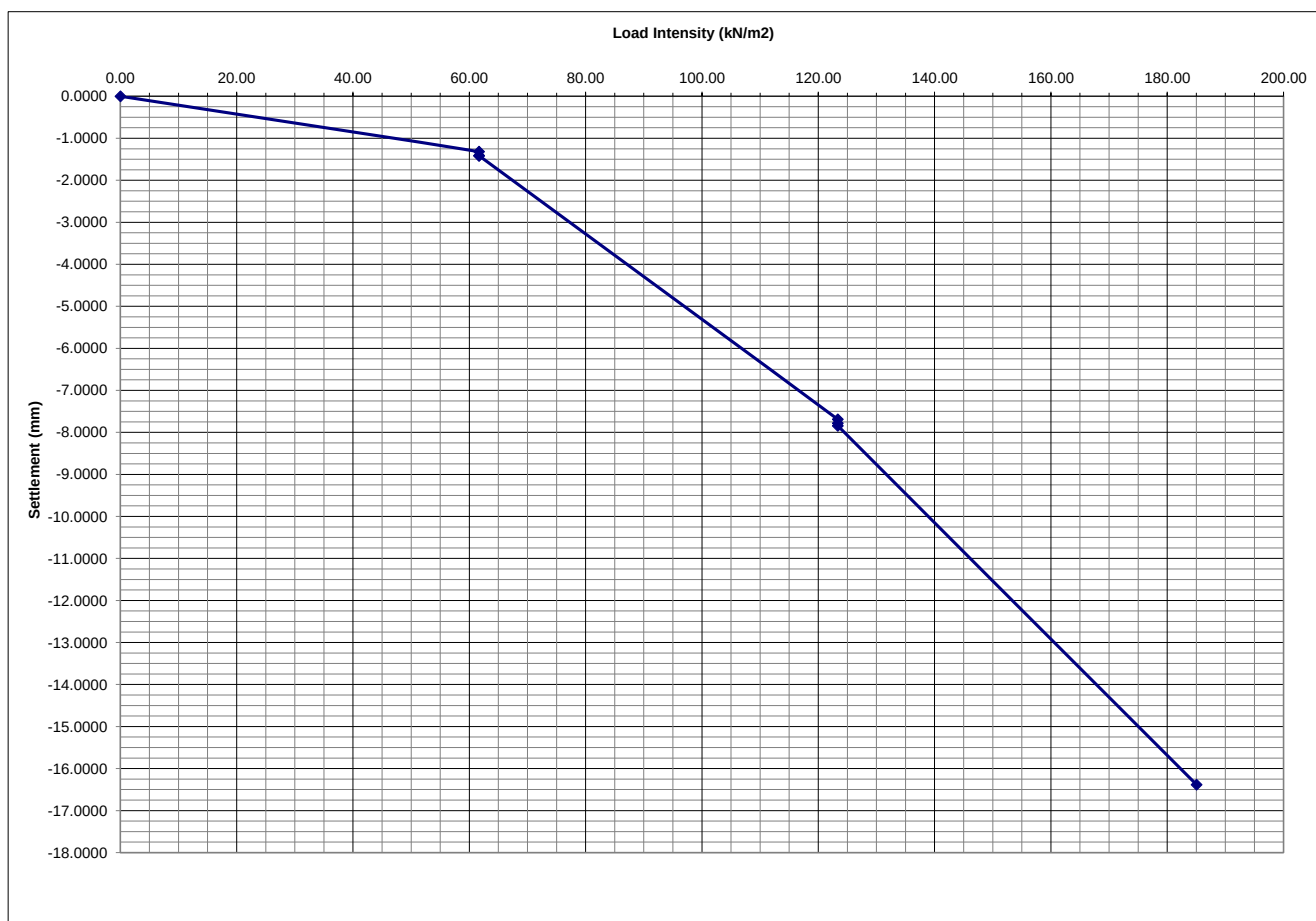
Site Engineer:	Checked By:	Date:	Approved By:	Date:
J. James	S. Towers	15/02/2016	M. Dyer	15/02/2016



Vertical Deformation Test-Equivalent CBR Value

In Accordance with BS1377: Part 9:1990

Site Name:	Prescot	Test Date:	28/06/2015
Site Ref:	10021	Type of Kentledge:	13 Tonne Excavator
Test No.:	PC CBR103	Test Depth (m bgl):	GL
Plate Diameter (mm)	450	Easting:	N/A
Maximum Applied Pressure (kN/m²):	185.04	Northing:	N/A
Maximum Deformation (mm):	-16.38	Weather:	Dry
Strata Description:	6F2		



Equivalent CBR Value of 3%

Comments

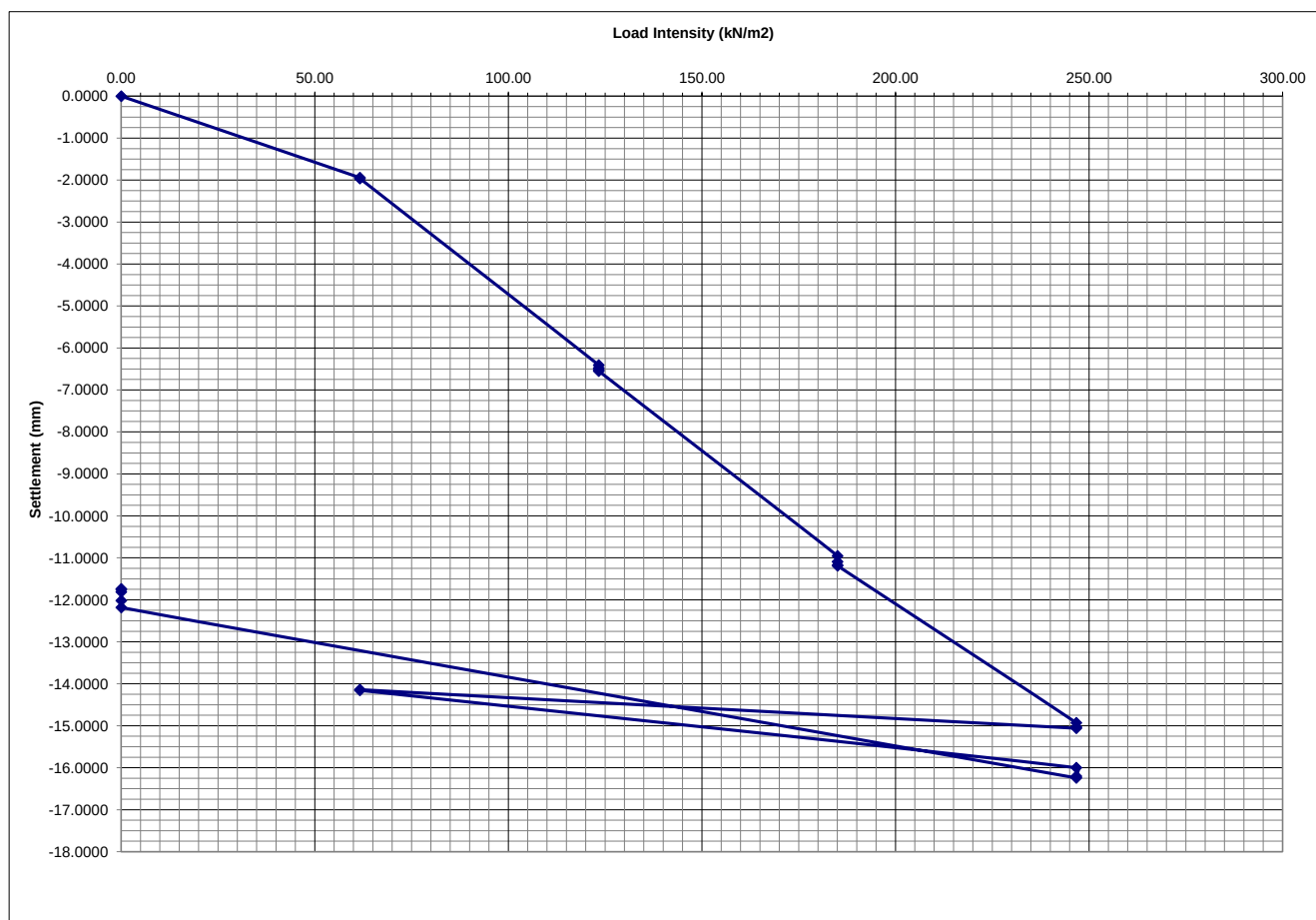
Site Engineer:	Checked By:	Date:	Approved By:	Date:
J. James	S. Towers	09/06/2015	M. Dyer	09/06/2015



Vertical Deformation Test-Equivalent CBR Value

In Accordance with BS1377: Part 9:1990

Site Name:	Prescot	Test Date:	28/06/2015
Site Ref:	10021	Type of Kettle:	13 Tonne Excavator
Test No.:	PC CBR104	Test Depth (m bgl):	GL
Plate Diameter (mm)	450	Easting:	N/A
Maximum Applied Pressure (kN/m²):	246.73	Northing:	N/A
Maximum Deformation (mm):	-16.24	Weather:	Dry
Strata Description:	6F2		



Equivalent CBR Value of 2%

Comments

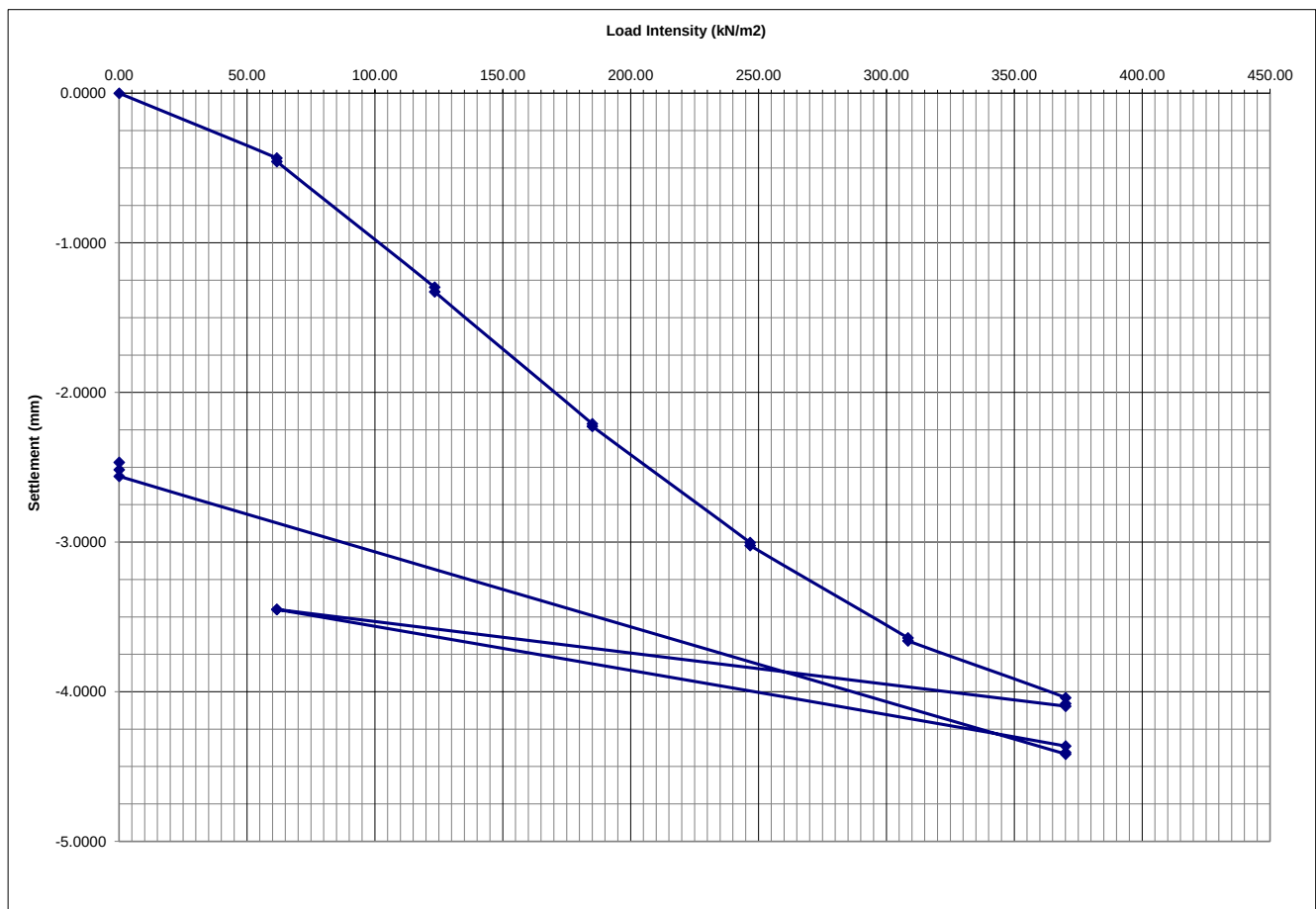
Site Engineer:	Checked By:	Date:	Approved By:	Date:
J. James	S. Towers	09/06/2015	M. Dyer	09/06/2015



Vertical Deformation Test-Equivalent CBR Value

In Accordance with BS1377: Part 9:1990

Site Name:	Prescot	Test Date:	28/06/2015
Site Ref:	10021	Type of Kentledge:	13 Tonne Excavator
Test No.:	PC CBR105	Test Depth (m bgl):	#REF!
Plate Diameter (mm)	450	Easting:	N/A
Maximum Applied Pressure (kN/m²):	370.09	Northing:	N/A
Maximum Deformation (mm):	-4.42	Weather:	Dry
Strata Description:	6F2		



Equivalent CBR Value of 13%

Comments

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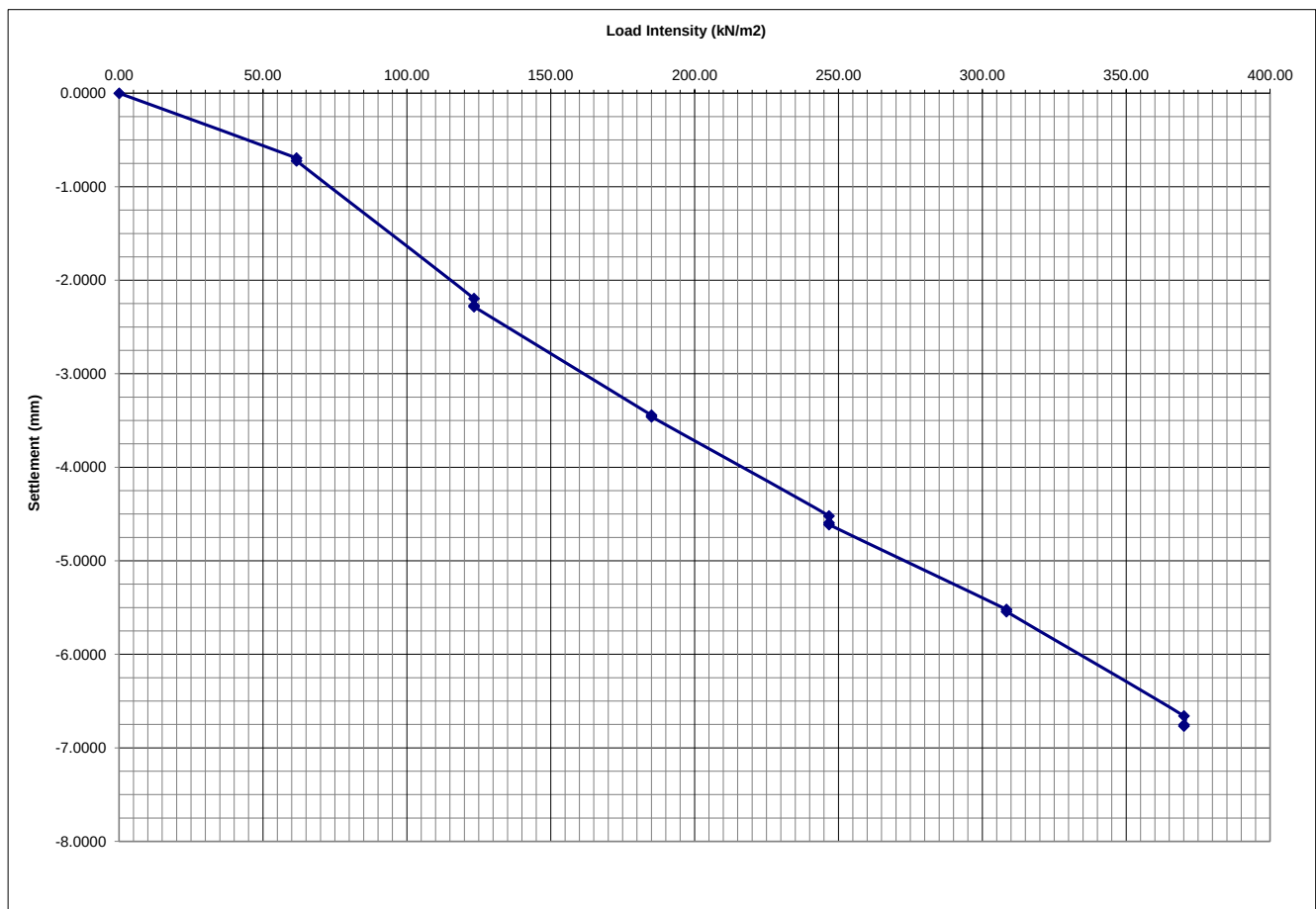
Site Engineer:	Checked By:	Date:	Approved By:	Date:
J. James	S. Towers	09/06/2015	M. Dyer	09/06/2015



Vertical Deformation Test-Equivalent CBR Value

In Accordance with BS1377: Part 9:1990

Site Name:	Prescot	Test Date:	28/06/2015
Site Ref:	10021	Type of Kentledge:	13 Tonne Excavator
Test No.:	PC CBR106	Test Depth (m bgl):	GL
Plate Diameter (mm)	450	Easting:	N/A
Maximum Applied Pressure (kN/m ²):	370.09	Northing:	N/A
Maximum Deformation (mm):	-6.77	Weather:	Dry
Strata Description:	6F2		



Equivalent CBR Value of 7%

Comments

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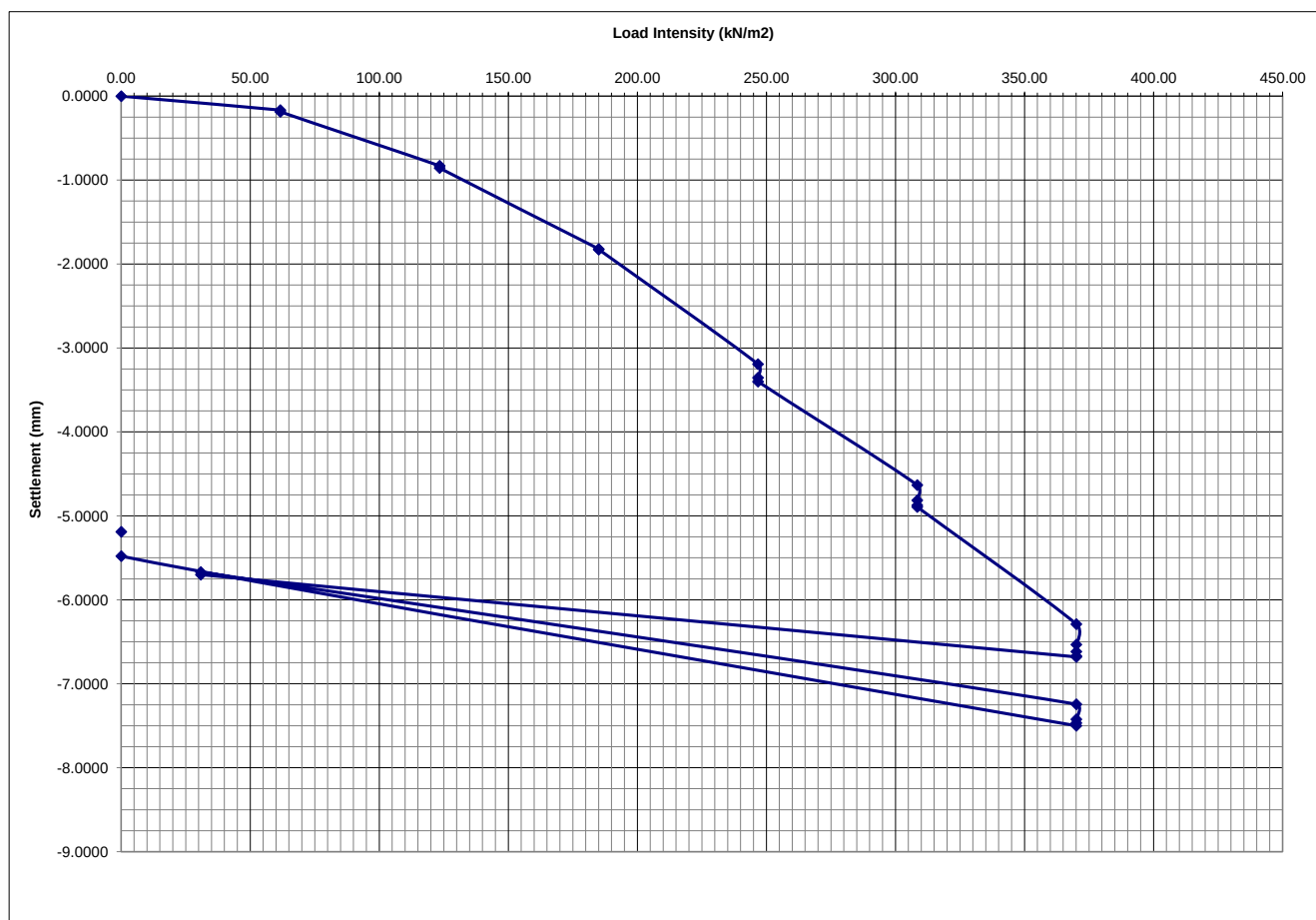
Site Engineer:	Checked By:	Date:	Approved By:	Date:
J. James	S. Towers	09/06/2015	M. Dyer	09/06/2015



Vertical Deformation Test-Equivalent CBR Value

In Accordance with BS1377: Part 9:1990

Site Name:	Prescot	Test Date:	24/06/2016
Site Ref:	10021	Type of Kentledge:	13 Tonne Excavator
Test No.:	PACBR107	Test Depth (m bgl):	GL
Plate Diameter (mm)	450	Easting:	N/A
Maximum Applied Pressure (kN/m ²):	370.09	Northing:	N/A
Maximum Deformation (mm):	-7.50	Weather:	Sunny
Strata Description:	6F2		



Equivalent CBR Value of 17%

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
J. James	S. Towers	15/02/2016	M. Dyer	15/02/2016

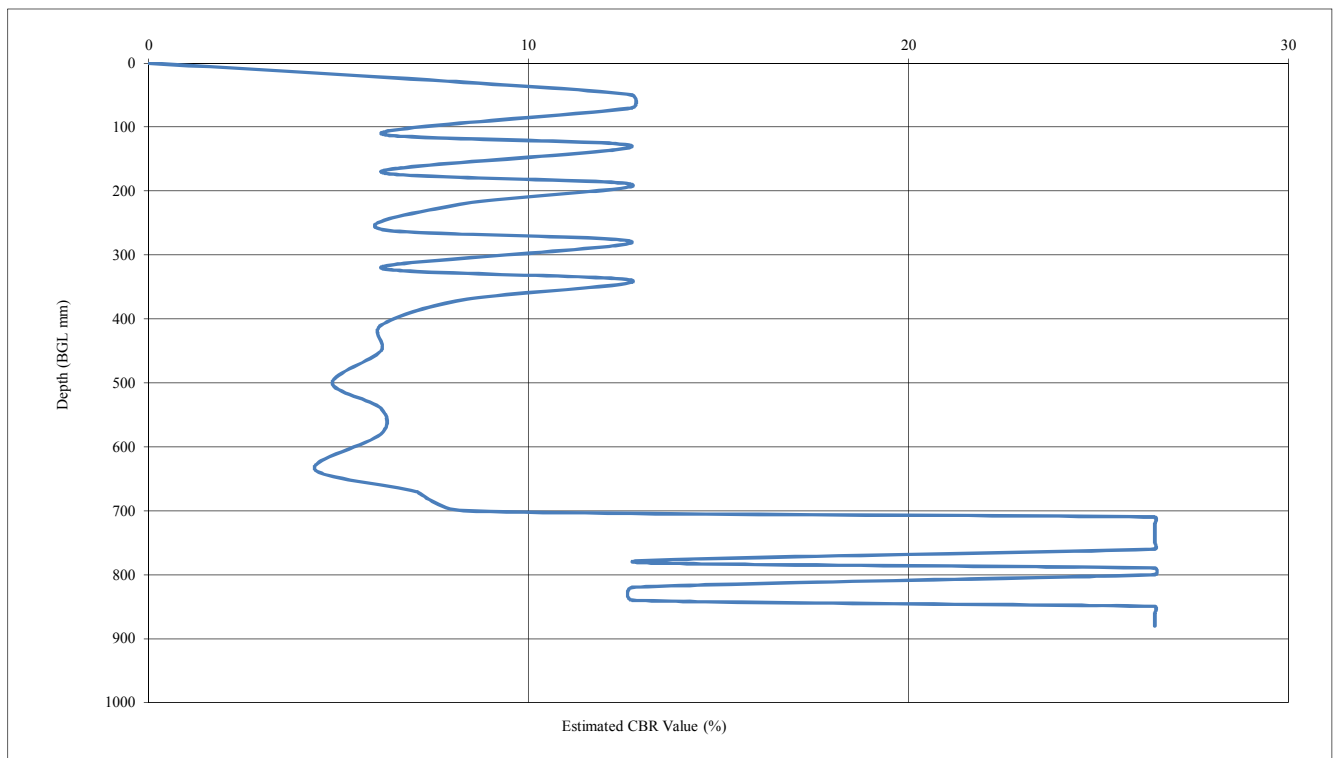


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Prescot	Test Date:	15/07/2015
Site Ref	10021	Test Location:	Prescot
Test No.:	PC DCP 104	Easting:	N/A
Initial Depth (mm BGL):	0	Northing:	N/A
Final Depth (mm BGL):	880		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	370	13	13	28.46	8.77
370	700	21	8	41.25	5.92
700	880	36	15	12.00	21.84

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
AT	ST	24/11/2015	MD	24/11/2015

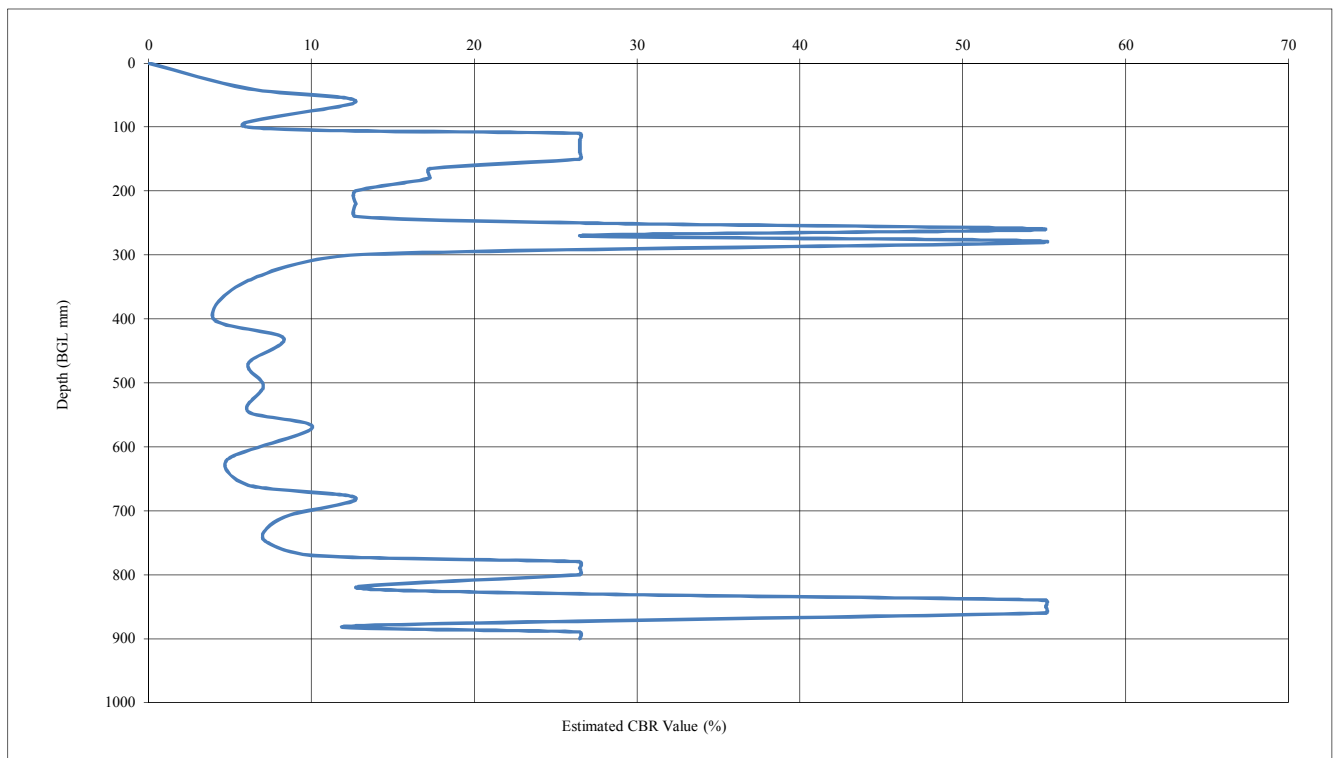


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Prescot	Test Date:	15/07/2015
Site Ref	10021	Test Location:	Prescot
Test No.:	PC DCP 105	Easting:	N/A
Initial Depth (mm BGL):	0	Northing:	N/A
Final Depth (mm BGL):	900		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	100	3	3	33.33	7.42
100	300	20	17	11.76	22.30
300	745	32	12	37.08	6.63
745	820	37	5	15.00	17.25
820	900	47	10	8.00	33.53

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
AT	ST	24/11/2015	MD	24/11/2015

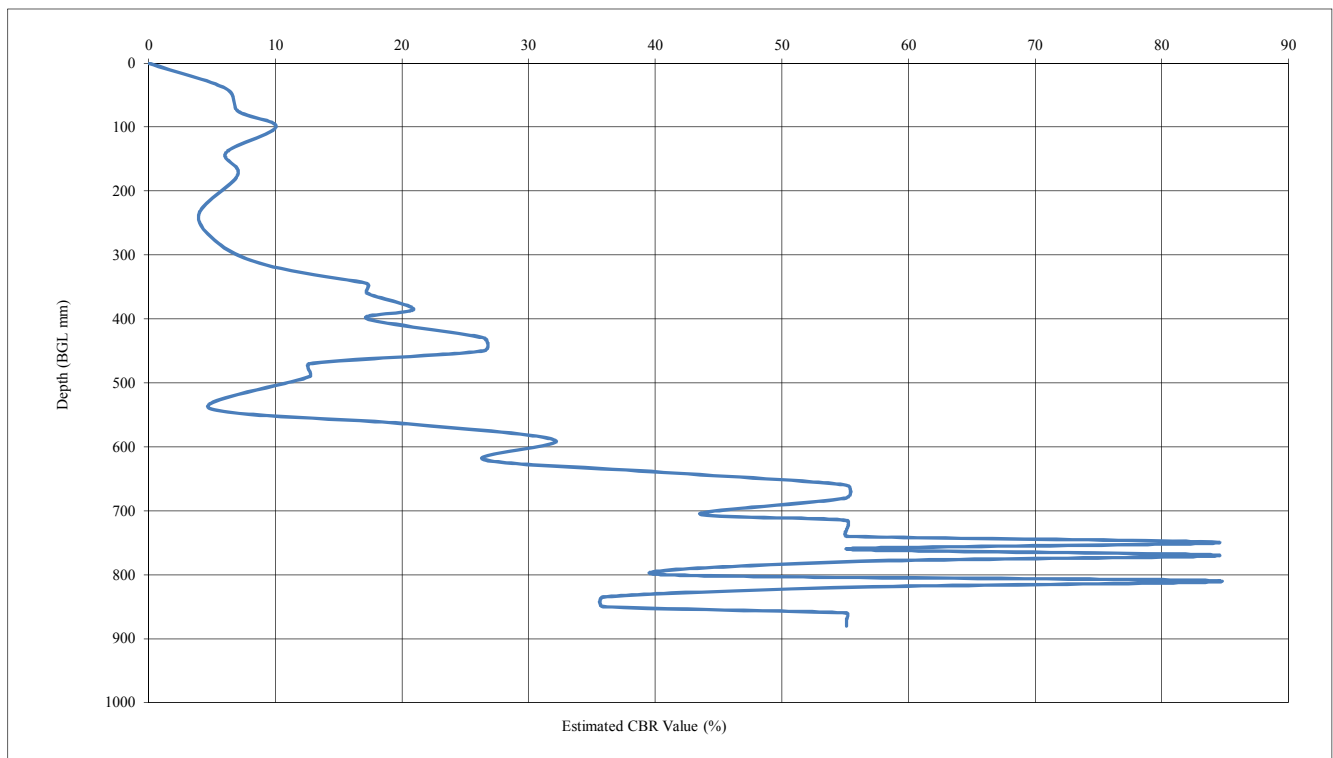


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Prescot	Test Date:	15/07/2015
Site Ref	10021	Test Location:	Prescot
Test No.:	PC DCP 106	Easting:	N/A
Initial Depth (mm BGL):	0	Northing:	N/A
Final Depth (mm BGL):	880		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	280	7	7	40.00	6.12
280	540	22	15	17.33	14.81
540	620	30	8	10.00	26.49
620	705	45	15	5.67	48.28
705	880	80	35	5.00	55.10

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
AT	ST	24/11/2015	MD	24/11/2015

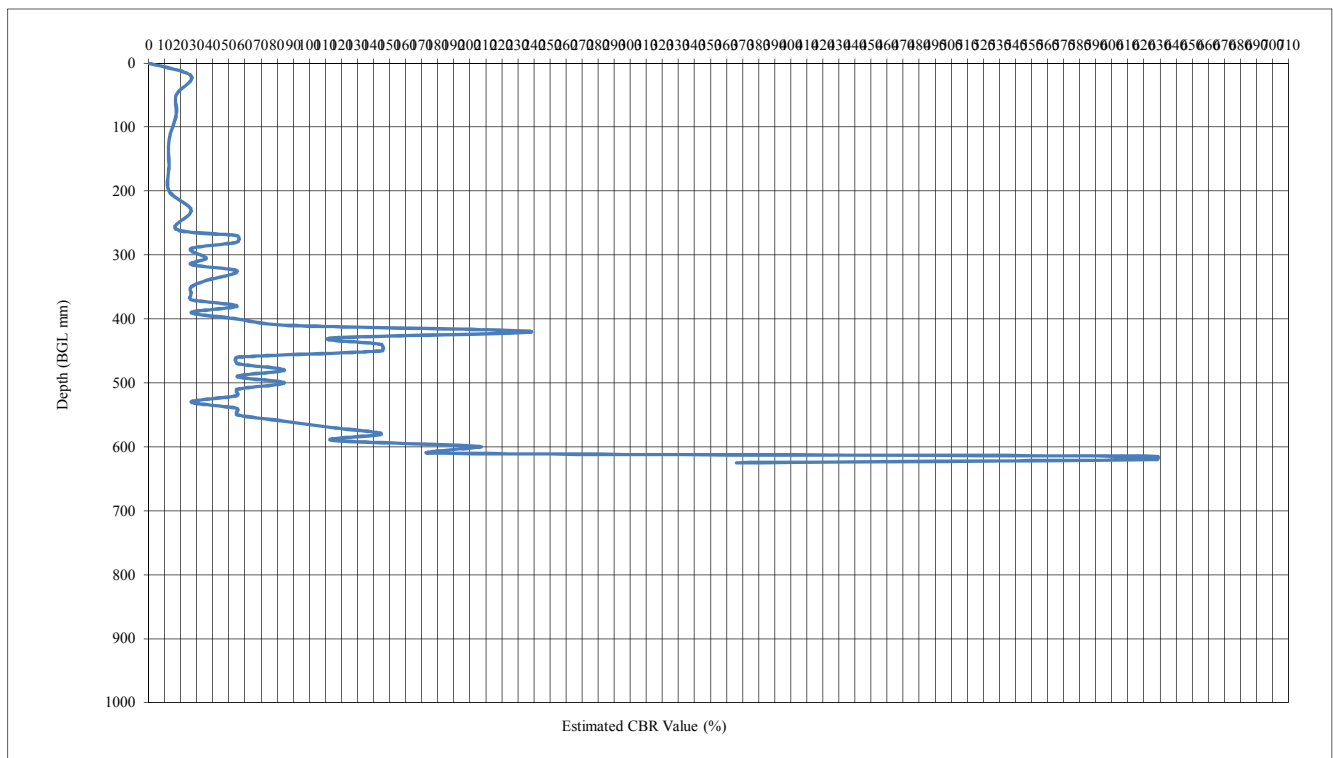


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Prescot	Test Date:	15/07/2015
Site Ref	10021	Test Location:	Prescot
Test No.:	PC DCP 107	Easting:	N/A
Initial Depth (mm BGL):	0	Northing:	N/A
Final Depth (mm BGL):	625		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	390	35	35	11.14	23.62
390	470	66	31	2.58	110.87
470	590	99	33	3.64	77.16
590	625	138	39	0.90	338.59

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
JJ	ST	24/11/2015	MD	24/11/2015

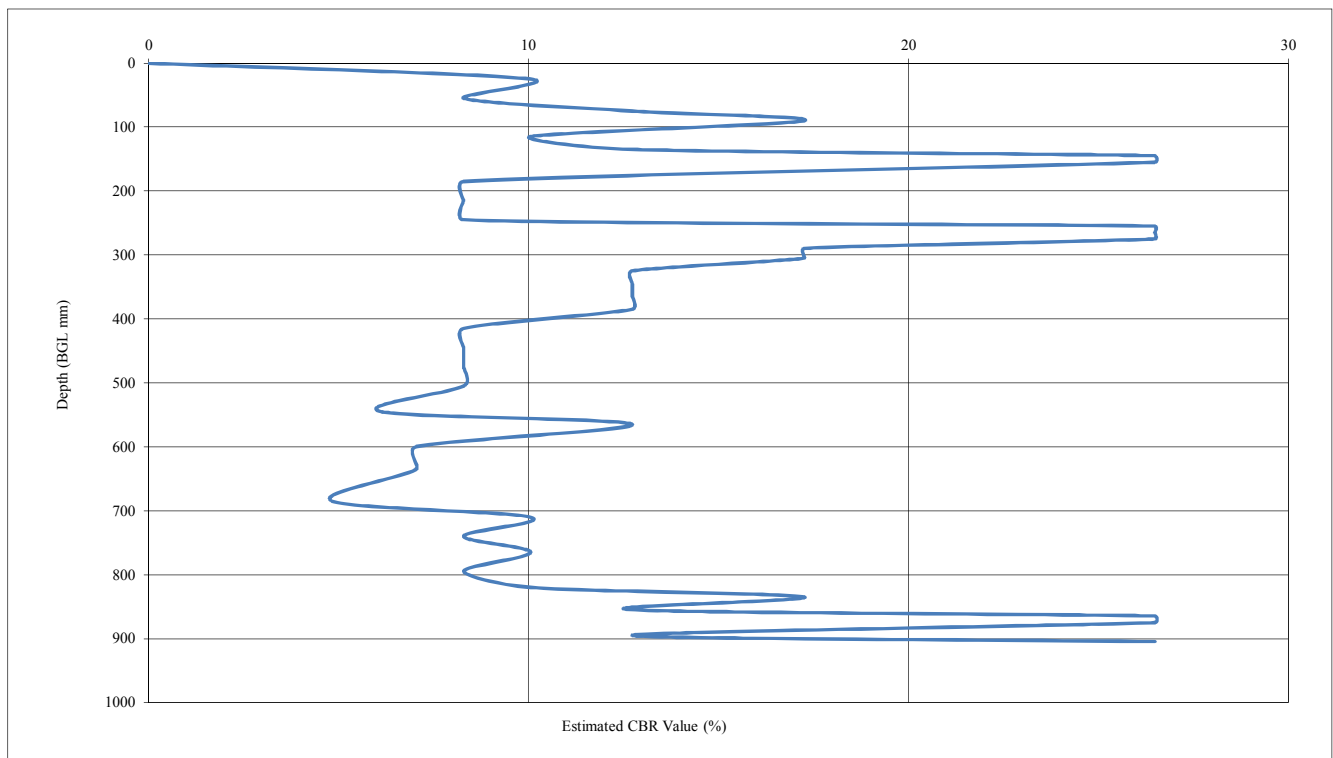


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Prescot	Test Date:	15/07/2015
Site Ref	10021	Test Location:	Prescot
Test No.:	PC DCP 108	Easting:	N/A
Initial Depth (mm BGL):	0	Northing:	N/A
Final Depth (mm BGL):	905		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	115	5	5	23.00	10.98
115	325	17	12	17.50	14.66
325	795	33	16	29.38	8.48
795	905	40	7	15.71	16.43

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
AT	ST	24/11/2015	MD	24/11/2015

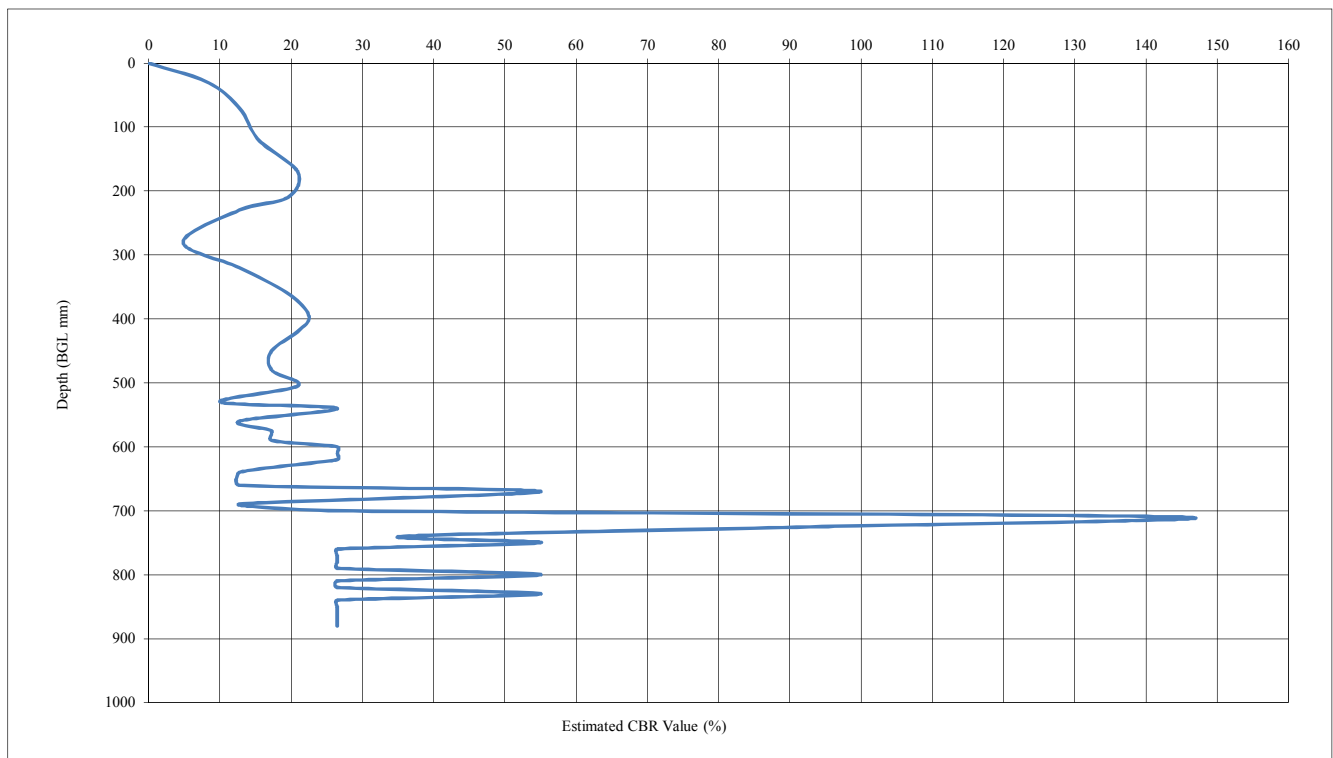


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Prescot	Test Date:	15/07/2015
Site Ref	10021	Test Location:	Prescot
Test No.:	PC DCP 109	Easting:	N/A
Initial Depth (mm BGL):	0	Northing:	N/A
Final Depth (mm BGL):	880		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	660	41	41	16.10	16.01
660	690	44	3	10.00	26.49
690	880	74	30	6.33	42.92

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
AT	ST	24/11/2015	MD	24/11/2015

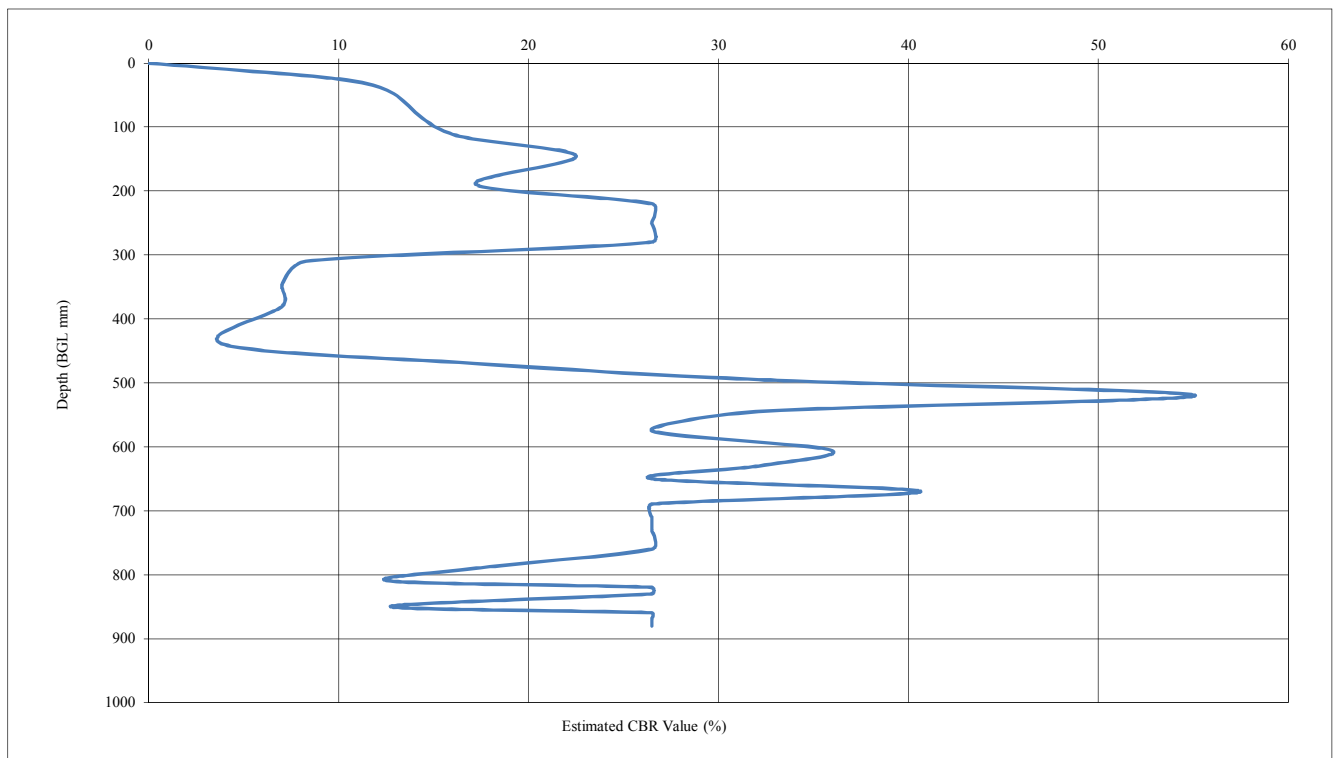


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Prescot	Test Date:	15/07/2015
Site Ref	10021	Test Location:	Prescot
Test No.:	PC DCP 110	Easting:	N/A
Initial Depth (mm BGL):	0	Northing:	N/A
Final Depth (mm BGL):	880		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	310	22	22	14.09	18.43
310	440	25	3	43.33	5.62
440	575	41	16	8.44	31.70
575	690	55	14	8.21	32.61
690	880	71	16	11.88	22.09

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
AT	ST	24/11/2015	MD	24/11/2015

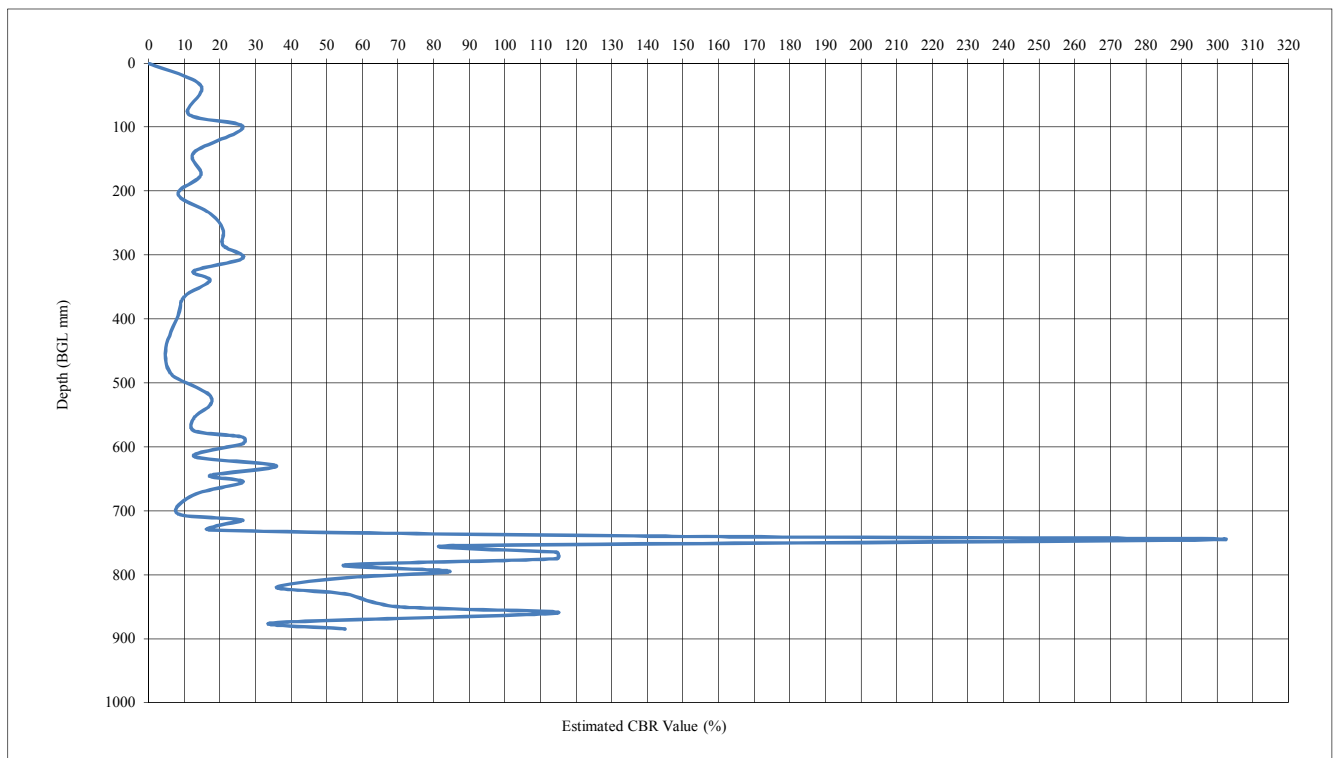


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Prescot	Test Date:	15/07/2015
Site Ref	10021	Test Location:	Prescot
Test No.:	PC DCP 111	Easting:	N/A
Initial Depth (mm BGL):	0	Northing:	N/A
Final Depth (mm BGL):	885		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	730	41	41	17.80	14.39
730	820	71	30	3.00	94.55
820	885	86	15	4.33	64.10

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
AT	ST	24/11/2015	MD	24/11/2015

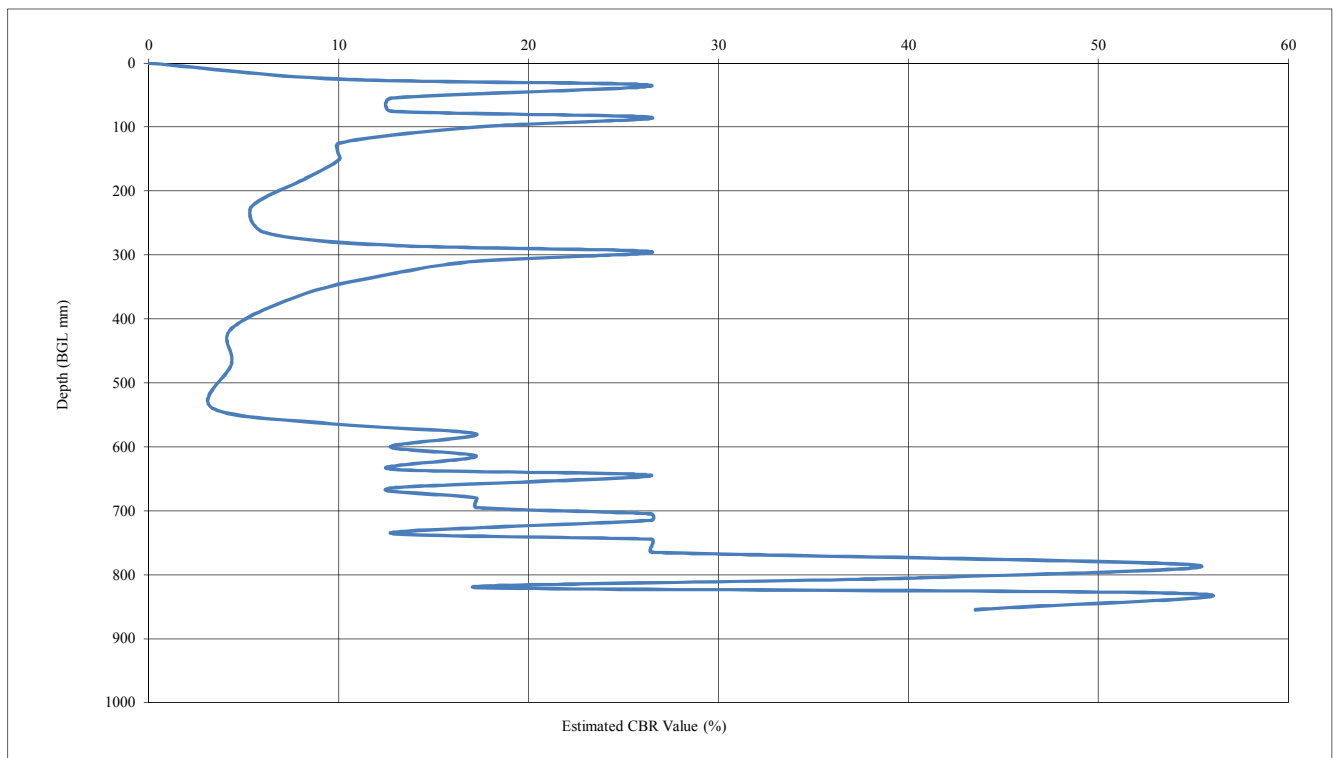


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Prescot	Test Date:	15/07/2015
Site Ref	10021	Test Location:	Prescot
Test No.:	PC DCP 112	Easting:	N/A
Initial Depth (mm BGL):	0	Northing:	N/A
Final Depth (mm BGL):	855		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	125	7	7	17.86	14.35
125	265	11	4	35.00	7.05
265	415	17	6	25.00	10.05
415	745	32	15	22.00	11.51
745	855	48	16	6.88	39.36

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
AT	ST	24/11/2015	MD	24/11/2015

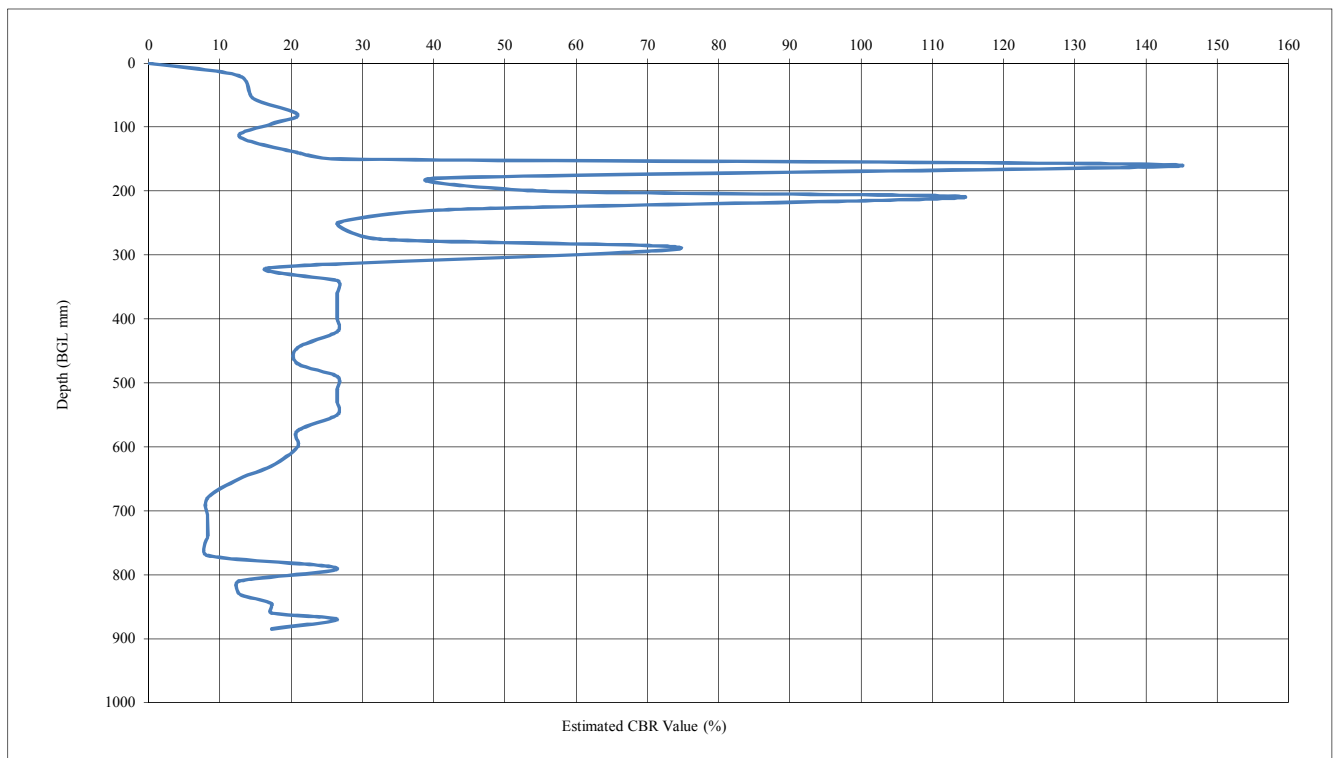


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Prescot	Test Date:	15/07/2015
Site Ref	10021	Test Location:	Prescot
Test No.:	PC DCP 120	Easting:	N/A
Initial Depth (mm BGL):	0	Northing:	N/A
Final Depth (mm BGL):	885		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	150	10	10	15.00	17.25
150	180	18	8	3.75	74.69
180	250	31	13	5.38	50.95
250	320	40	9	7.78	34.54
320	885	81	41	13.78	18.87

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
AT	ST	24/11/2015	MD	24/11/2015

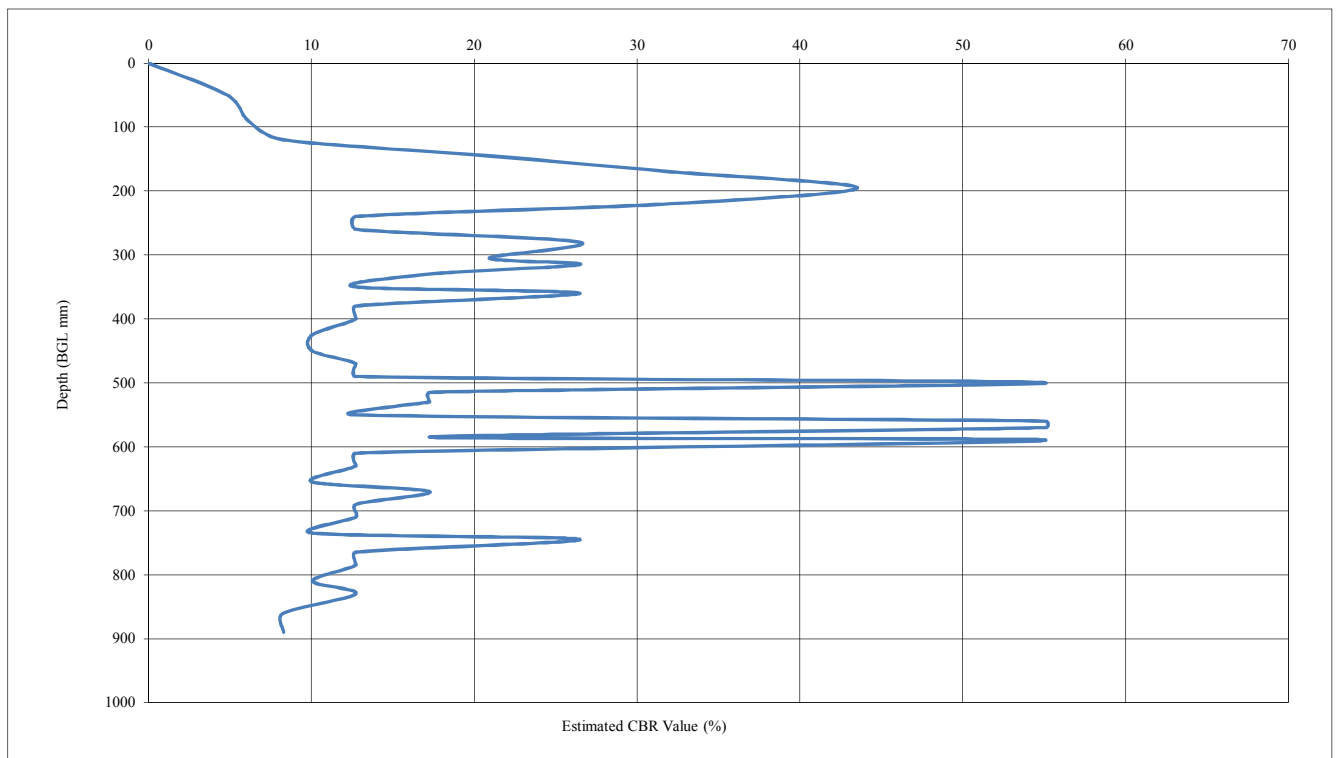


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Prescot	Test Date:	15/07/2015
Site Ref	10021	Test Location:	Prescot
Test No.:	PC DCP 121	Easting:	N/A
Initial Depth (mm BGL):	0	Northing:	N/A
Final Depth (mm BGL):	890		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	240	16	16	15.00	17.25
240	470	30	14	16.43	15.67
470	610	43	13	10.77	24.49
610	765	51	8	19.38	13.16
765	890	56	5	25.00	10.05

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
AT	ST	24/11/2015	MD	24/11/2015

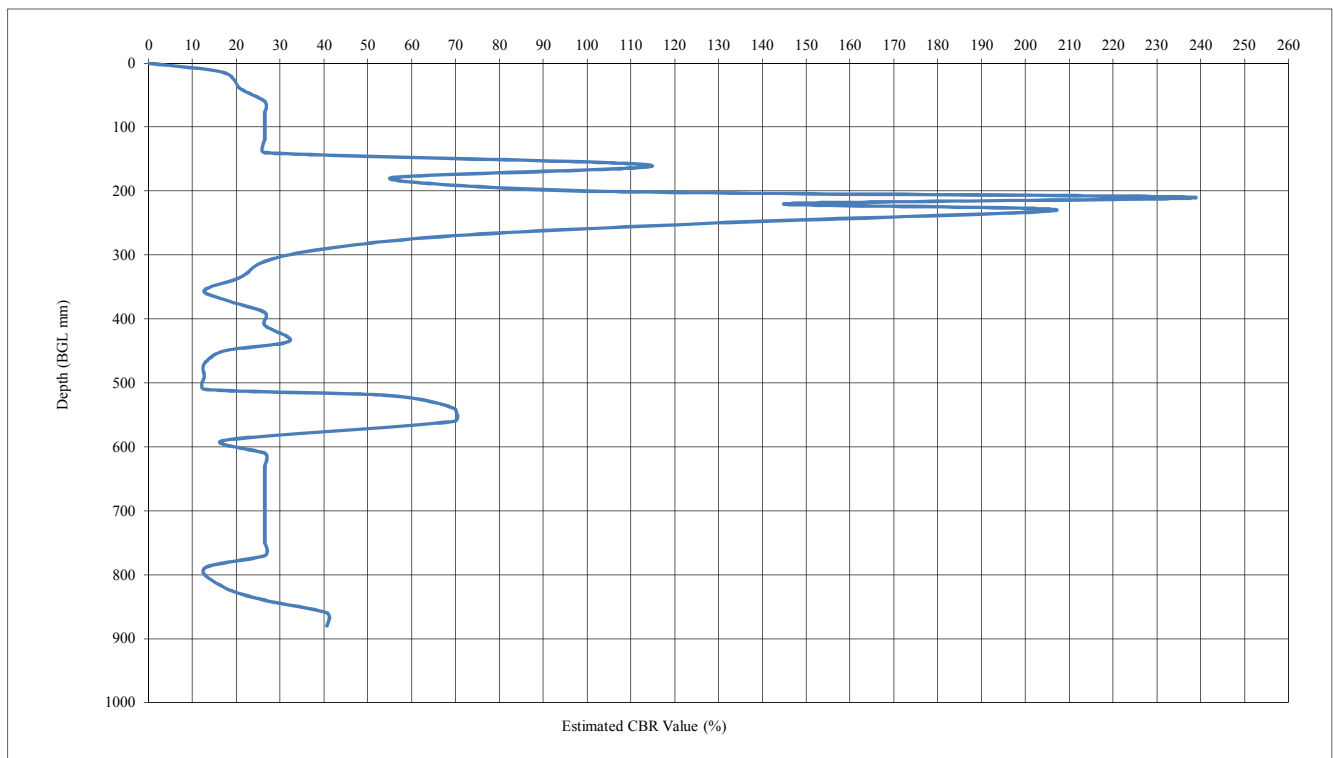


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Prescot	Test Date:	15/07/2015
Site Ref	10021	Test Location:	Prescot
Test No.:	PC DCP 127	Easting:	N/A
Initial Depth (mm BGL):	0	Northing:	N/A
Final Depth (mm BGL):	880		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	140	13	13	10.77	24.49
140	180	25	12	3.33	84.59
180	355	74	49	3.57	78.64
355	590	100	26	9.04	29.47
590	880	129	29	10.00	26.49

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
AT	ST	24/11/2015	MD	24/11/2015

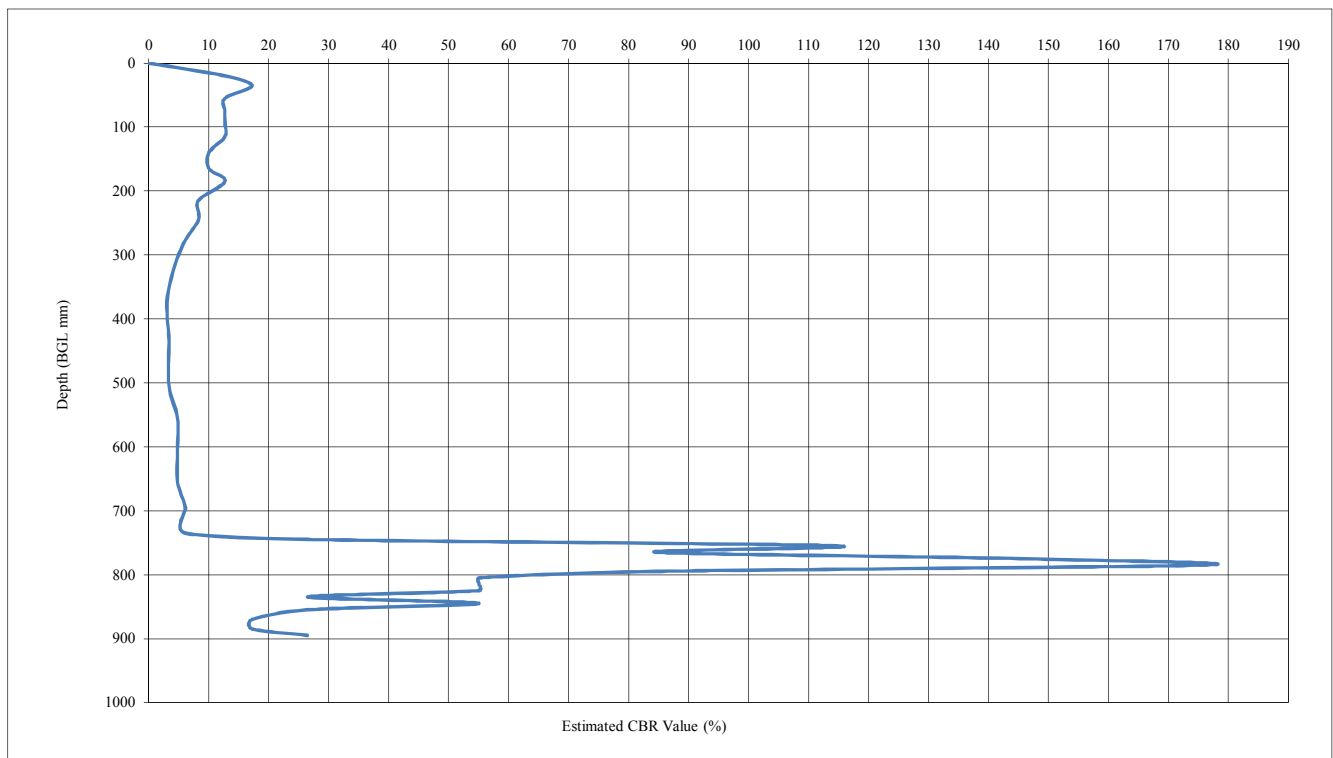


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Prescot	Test Date:	15/07/2015
Site Ref	10021	Test Location:	Prescot
Test No.:	PC DCP 128	Easting:	N/A
Initial Depth (mm BGL):	0	Northing:	N/A
Final Depth (mm BGL):	895		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	215	10	10	21.50	11.79
215	735	20	10	52.00	4.64
735	895	55	35	4.57	60.58

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
AT	ST	24/11/2015	MD	24/11/2015

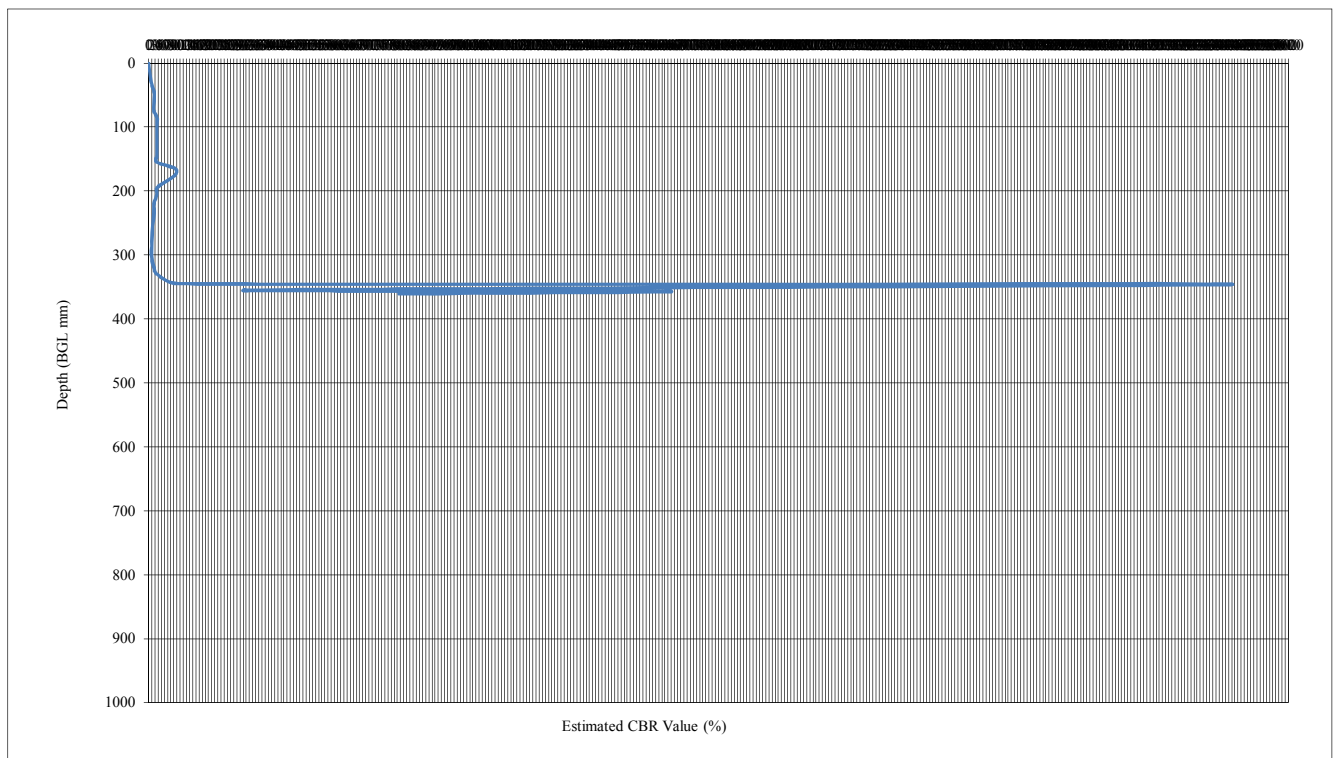


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Prescot	Test Date:	15/07/2015
Site Ref	10021	Test Location:	Prescot
Test No.:	PC DCP 129	Easting:	N/A
Initial Depth (mm BGL):	0	Northing:	N/A
Final Depth (mm BGL):	361		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	155	12	12	12.92	20.21
155	195	21	9	4.44	62.41
195	330	29	8	16.88	15.23
330	361	74	45	0.69	447.79

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
AT	ST	24/11/2015	MD	24/11/2015

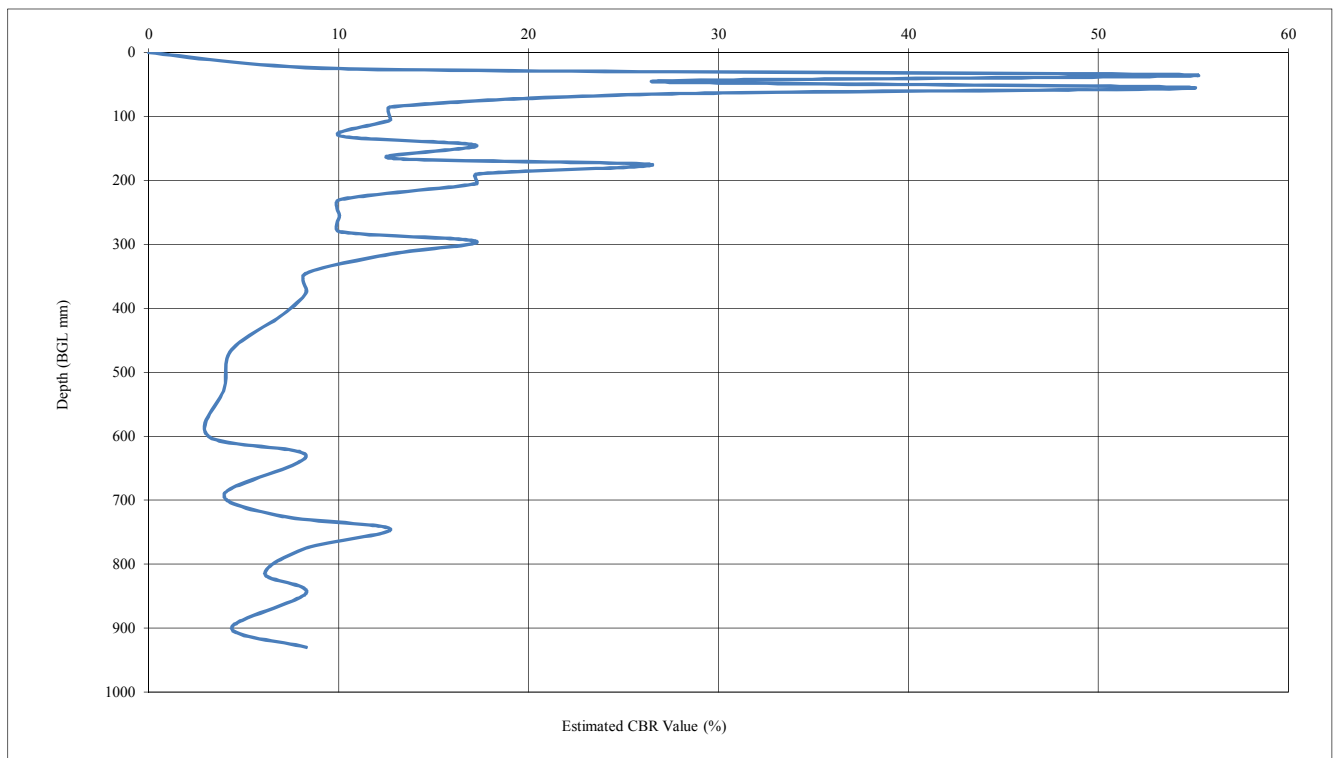


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Prescot	Test Date:	15/07/2015
Site Ref	10021	Test Location:	Prescot
Test No.:	PC DCP 131	Easting:	N/A
Initial Depth (mm BGL):	0	Northing:	N/A
Final Depth (mm BGL):	930		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	130	10		#DIV/0!	#DIV/0!
130	230	16	6	16.67	15.43
230	345	21	5	23.00	10.98
345	600	26	5	51.00	4.73
600	930	930	904	0.37	876.20

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
AT	ST	24/11/2015	MD	24/11/2015

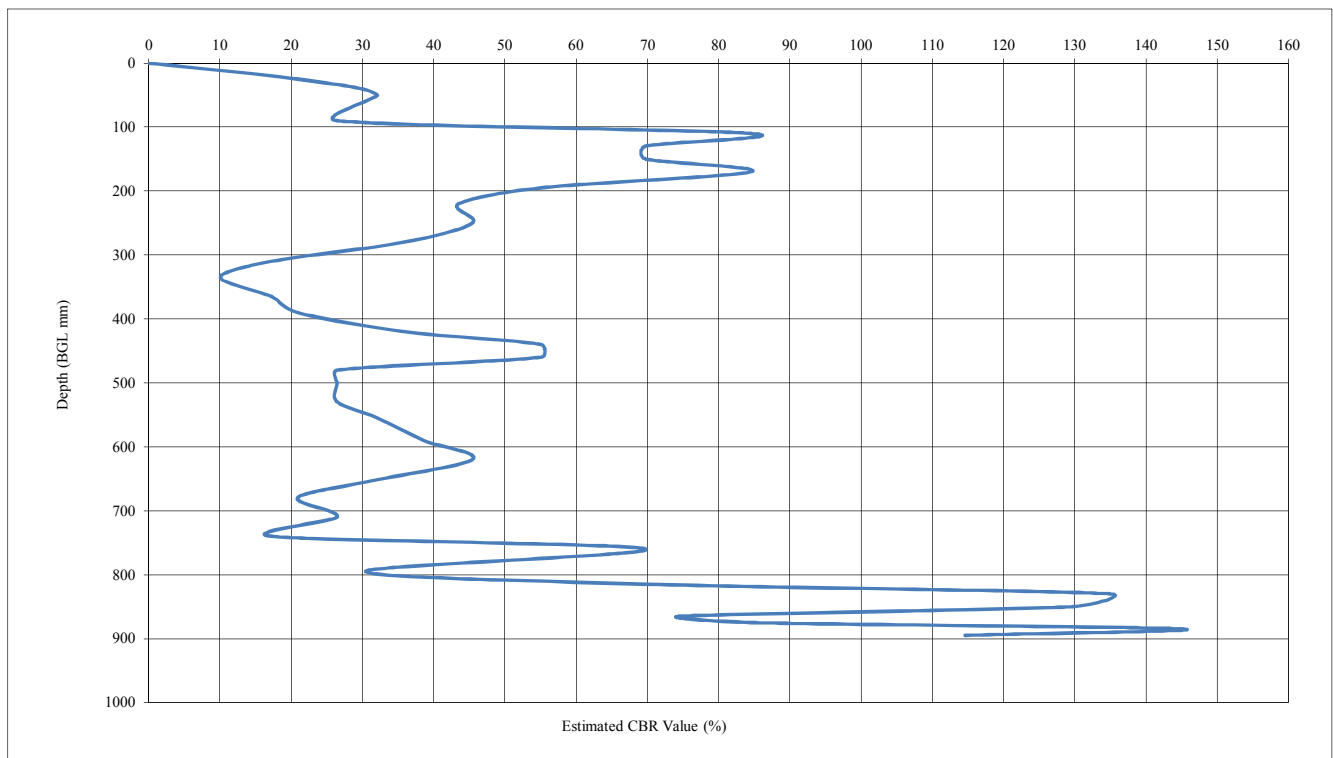


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Prescot	Test Date:	15/07/2015
Site Ref	10021	Test Location:	Prescot
Test No.:	PC DCP 132	Easting:	N/A
Initial Depth (mm BGL):	0	Northing:	N/A
Final Depth (mm BGL):	895		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	335	52	52	6.44	42.15
335	480	70	18	8.06	33.29
480	740	99	29	8.97	29.73
740	795	108	9	6.11	44.57
795	895	145	37	2.70	105.58

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
AT	ST	24/11/2015	MD	24/11/2015

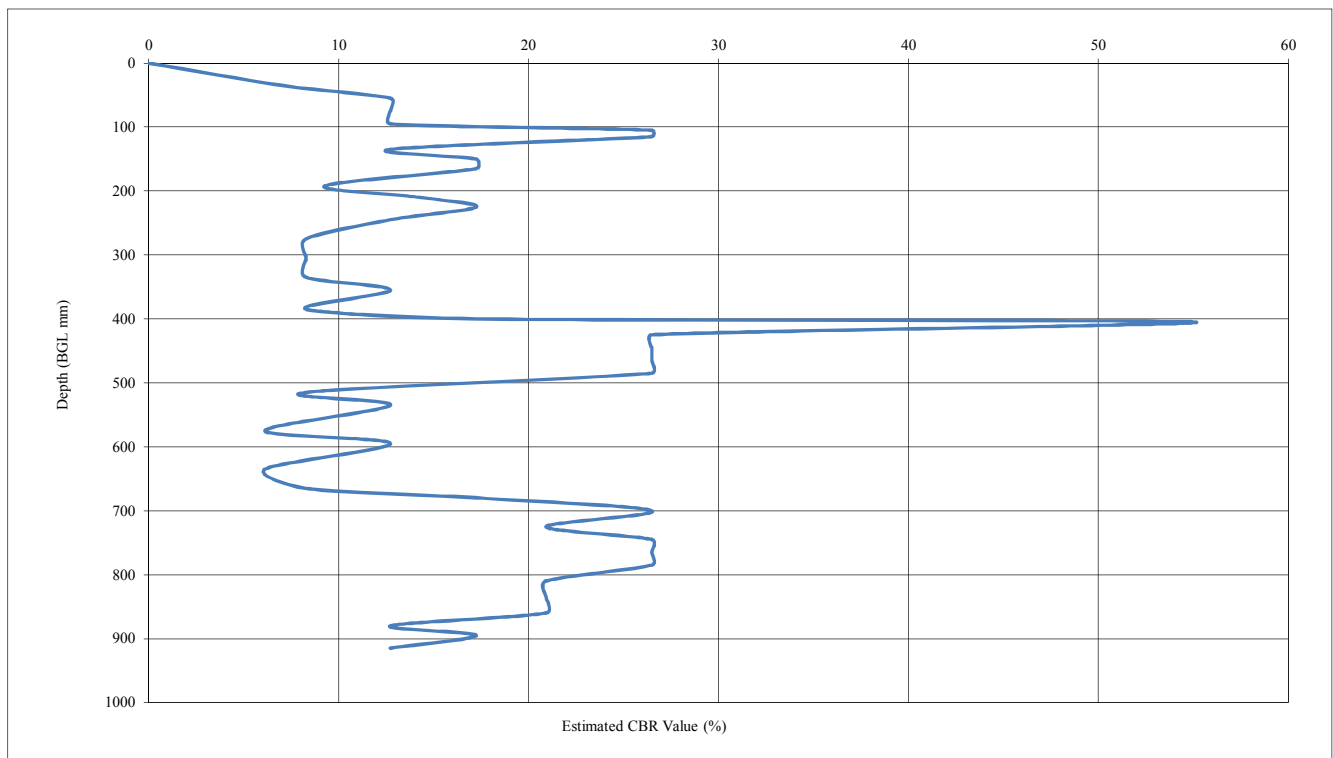


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Prescot	Test Date:	15/07/2015
Site Ref	10021	Test Location:	Prescot
Test No.:	PC DCP 133	Easting:	N/A
Initial Depth (mm BGL):	0	Northing:	N/A
Final Depth (mm BGL):	915		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	135	7	7	19.29	13.23
135	385	18	11	22.73	11.12
385	485	28	10	10.00	26.49
635	915	54	26	10.77	24.49

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
AT	ST	24/11/2015	MD	24/11/2015

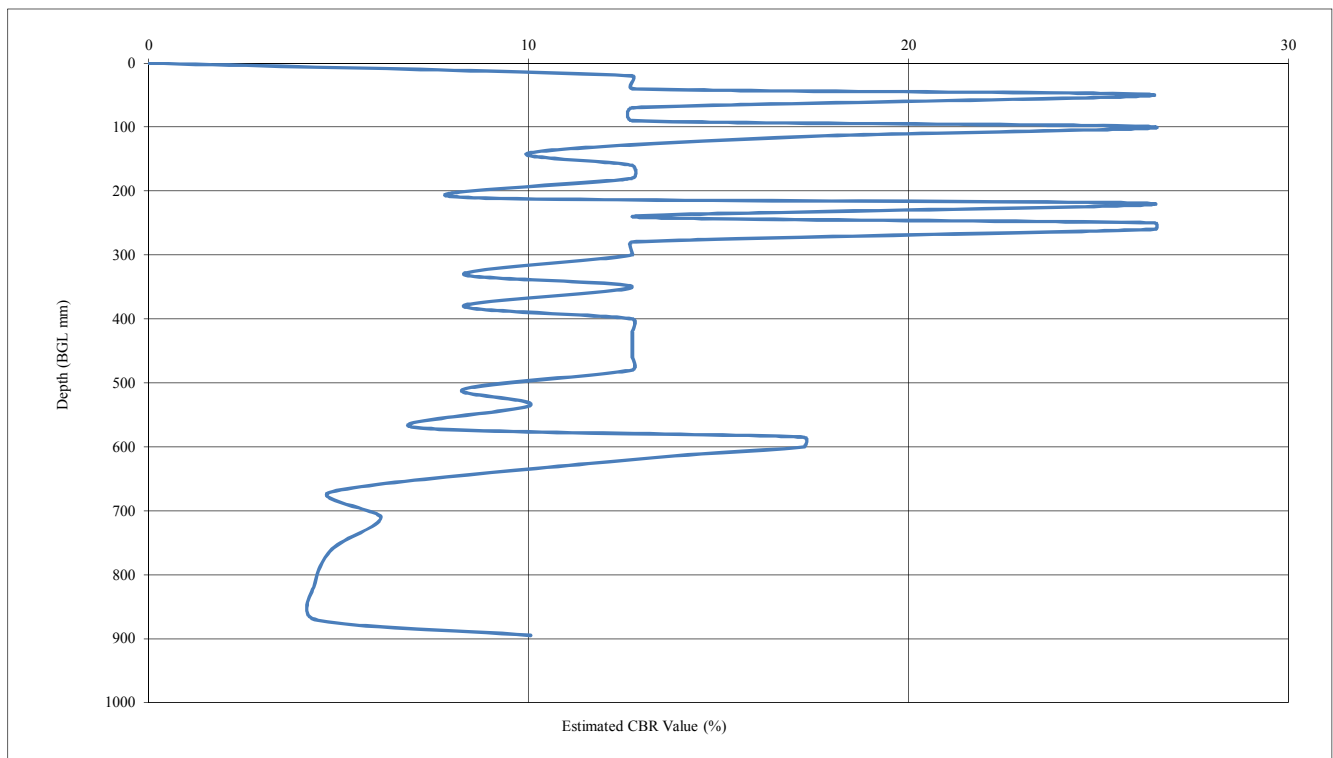


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Prescot	Test Date:	15/07/2015
Site Ref	10021	Test Location:	Prescot
Test No.:	PC DCP 134	Easting:	N/A
Initial Depth (mm BGL):	0	Northing:	N/A
Final Depth (mm BGL):	895		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	140	8	8	17.50	14.66
140	210	11	3	23.33	10.82
210	330	18	7	17.14	14.98
330	570	28	10	24.00	10.50
570	895	37	9	36.11	6.82

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
AT	ST	24/11/2015	MD	24/11/2015

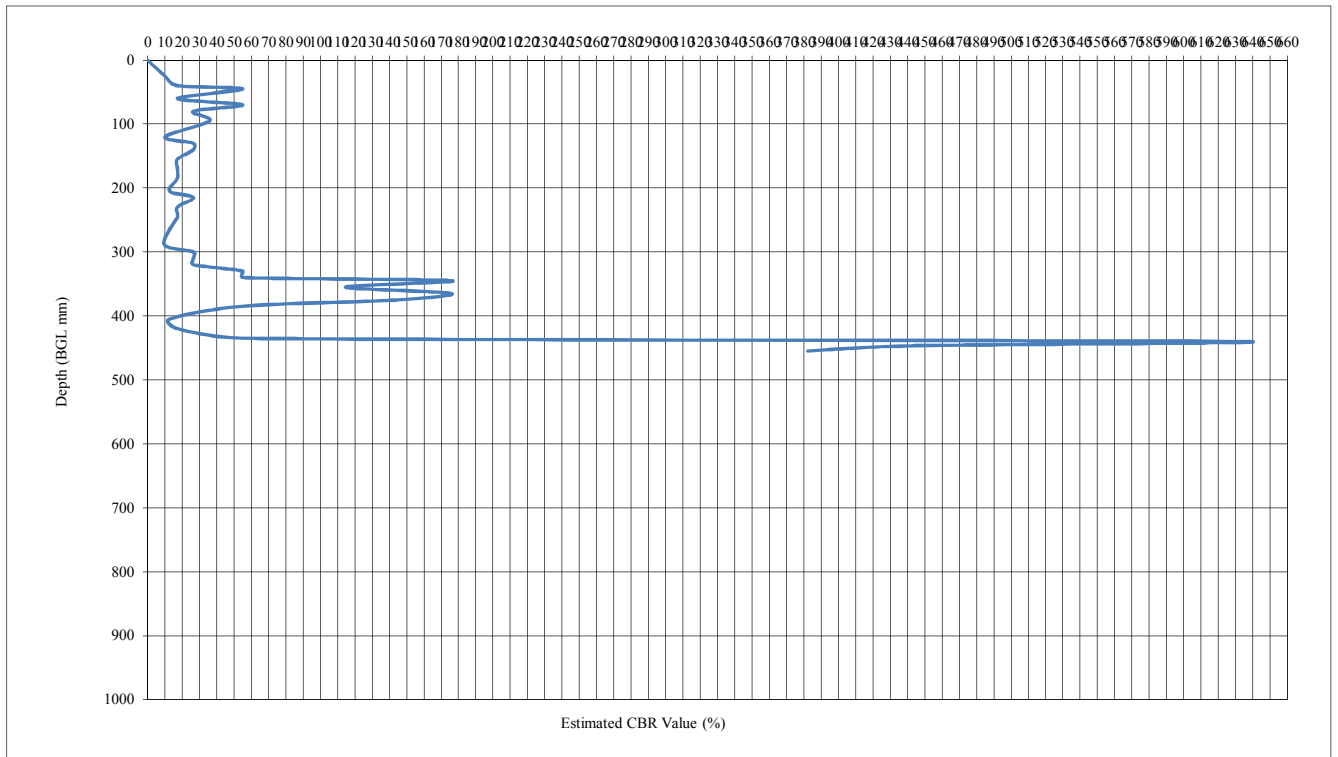


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Prescot	Test Date:	15/07/2015
Site Ref	10021	Test Location:	Prescot
Test No.:	PC DCP 135	Easting:	N/A
Initial Depth (mm BGL):	0	Northing:	N/A
Final Depth (mm BGL):	480		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	80	7	7	11.43	23.00
80	290	21	14	15.00	17.25
290	405	49	28	4.11	67.84
405	455	83	34	1.47	200.89

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
AT	ST	24/11/2015	MD	24/11/2015

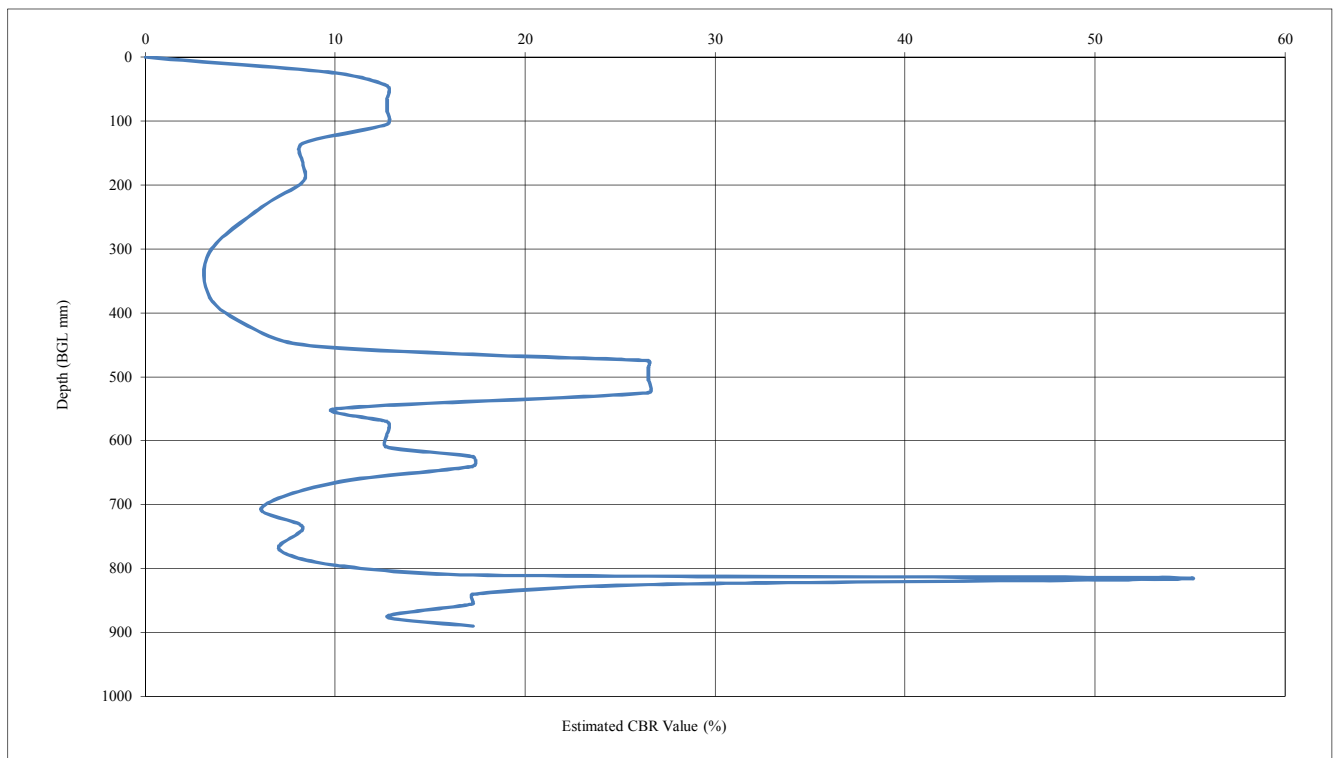


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Prescot	Test Date:	15/07/2015
Site Ref	10021	Test Location:	Prescot
Test No.:	PC DCP 136	Easting:	N/A
Initial Depth (mm BGL):	0	Northing:	N/A
Final Depth (mm BGL):	890		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	135	6	6	22.50	11.24
135	450	13	7	45.00	5.40
450	550	21	8	12.50	20.92
550	795	31	10	24.50	10.27
795	890	38	7	13.57	19.18

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
AT	ST	24/11/2015	MD	24/11/2015

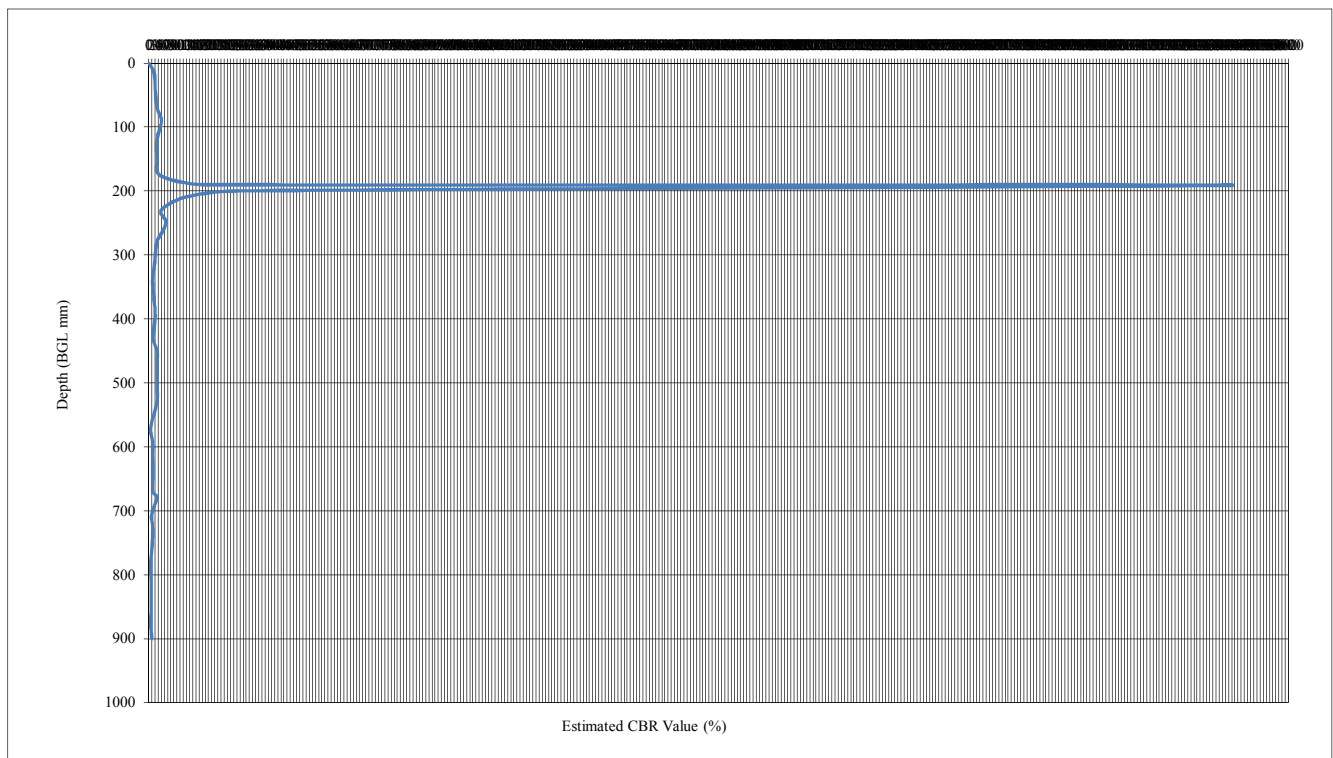


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Prescot	Test Date:	15/07/2015
Site Ref	10021	Test Location:	Prescot
Test No.:	PC DCP 137	Easting:	N/A
Initial Depth (mm BGL):	0	Northing:	N/A
Final Depth (mm BGL):	900		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	170	17		#DIV/0!	#DIV/0!
170	230	50	33	1.82	160.53
230	900	92	42	15.95	16.17

Comments

Site Engineer:	Checked By:	Date:	Approved By:	Date:
AT	ST	24/11/2015	MD	24/11/2015