



ENVIRONMENTAL REMEDICATION CONTRACTING



FIRST STREET, MANCHESTER
 REMEDIATION OF A 7.6 ACRE FORMER
 INNER CITY GASWORKS BY CELTIC
 PRIOR TO MIXED RESIDENTIAL AND
 COMMERCIAL DEVELOPMENT.

ABOUT US

Celtic is a leading specialist remediation contractor with a proven track record over 25 years of delivering cost effective remediation schemes.

We work seamlessly with you, integrating with your project team to understand your overall requirements and develop a bespoke remedial approach to deliver maximum value.

Our principal area of expertise is the on-site treatment of contaminated soil and groundwater using a variety of specialist biological, chemical and physical processes. We can also provide a full reclamation package including demolition, remediation of soil and groundwater, and site re-grading to development profiles. We manage your risks by providing fixed price contracts to achieve regulator approval, backed by a warranty.

Celtic is part of EnGlobe Corp., a world leader in providing integrated environmental services which operates in the UK, France, the USA and Canada. By selecting Celtic, you benefit from EnGlobe's international experience in the successful assessment and remediation of over 6,300 sites throughout Europe, North America and North Africa; over 1,000 of which are in the UK. As part of EnGlobe, we offer financial stability and one of the largest dedicated teams of remediation experts.



WOOLSTON CANAL
 CELTIC REMEDIATED CONTAMINATED SEDIMENTS WITHIN A CANAL BASIN AND USED THE TREATED SOILS TO CONSTRUCT A NEW LANDFORM ENCLOSED WITHIN GABION WALLS AND REED BEDS.



OUR APPROACH

Our range of remediation techniques and depth of experience is unparalleled in the UK. Our remediation designs have saved our clients millions of pounds on development costs and enhanced land value, consistently bringing sites through to construction phase ahead of programme.

By using our experience to identify and manage risk for our customers, we maximise value and certainty, and minimise programme duration. We can implement multiple technologies to address a wide and complex range of contaminants in both soil and groundwater.

We recognise that best value engineering solutions are developed through a team approach with the client and their advisors. When possible we participate in early contractor engagement to enable clients to fully develop remediation budgets and programmes.

We operate our own in-house remediation plant which provides us with the flexibility to react quickly to your requirements and allows you to benefit from our on-going technological innovation.

25 years of successful remediation and repeat business shows that we deliver. Every time.



RAYNESWAY RESOURCE PARK, DERBY
THE UK'S LARGEST CHLORINATED SOLVENT CHEMICAL OXIDATION PROJECT, DESIGNED AND IMPLEMENTED BY CELTIC AND DELIVERED TO COST AND PROGRAMME AS PART OF A £175M REDEVELOPMENT SCHEME.



GROUNDWATER TREATMENT
THIS INNOVATIVE GROUNDWATER CONTAINMENT DESIGN ON A FORMER GASWORKS OVERCAME SEVERE SPACE RESTRICTIONS AND OPERATES VIRTUALLY UNNOTICED ON OUR CUSTOMERS BUSY OPERATIONAL SITE.

OUR EXPERIENCE

As one of the longest standing and most experienced specialist remediation contractors in the UK we have direct experience of solving a wide range of contaminated land problems, whether associated with complex contaminants, constrained site logistics or stakeholder issues.

We have worked on a wide range of sites including gasworks, petro-chemical refineries, chemical works, waste lagoons, landfills, petrol stations, manufacturing sites, military sites and engineering works.

Our in-house design team develops focused remedial schemes which we can take through from conceptual design and regulator negotiation to full scale implementation and final validation and regulator approval.

Our approach is to develop pragmatic solutions, using innovative technologies where appropriate, that focus on maximising the re-use of material on-site while minimising cost and programme.

Previous remediation contracts have ranged in value from £50k to £6.1m and our project teams are experienced in managing projects ranging from simple schemes to major projects with multiple stakeholders. The quality of our industry leading services has been recognised by numerous awards for innovation and sustainability from both remediation and engineering industry bodies.

TECHNICAL AWARDS

- **2014 WINNER - PROJECT OF THE YEAR**
Construction News Specialist Awards - Mersey Gateway.
- **2014 WINNER - TECHNICAL APPLICATION AWARD**
Chartered Institute of Highways and Transportation (CIHT) Awards - Mersey Gateway.
- **2013 WINNER - BROWNFIELD BRIEFING**
Best Use of a Combination of Remediation Techniques - Avonmouth.

OUR CUSTOMERS

We work for a range of clients including house builders, commercial developers and industrial site owners.

We have delivered remediation schemes for many of the UK's major house builders including Persimmon, Taylor Wimpey, Barratt, Bovis and Redrow. We use our contaminated land and geotechnical expertise to design fully thought-through schemes that eliminate uncertainties associated with ground conditions.

Some of the UK's key commercial developers are clients including St Modwens, Goodman and The Peel Group.

We have worked for many of the major industrial site owners including DuPont, Shell, BP, ESSO, SGN, Wales & West Utilities, National Grid, BNFL and Clariant, implementing innovative remediation technologies on challenging sites.

We also provide specialist subcontract remediation services to main contractors including BAM Nuttall, Eric Wright, Carillion, Costain, Laing O'Rourke, Morgan Sindall, Skanska and Walters Group.

We have undertaken remediation required under Part IIa of the Environmental Protection Act for local councils and the Environment Agency.

We work with consultants to assess remedial options and design remediation strategies, including Arup, WYG, Jacobs, ERM, AMEC, CH2M, Halcrow, Atkins, Entec and Capita Symonds.

"We are framework contractors for the Environment Agency, Scotia Gas Networks, National Grid and Wales and West Utilities".



MERSEY GATEWAY
 CELTIC SUCCESSFULLY COMBINED MULTIPLE REMEDIATION TECHNOLOGIES TO COMPLETE THE REMEDIATION OF THIS FORMER CHEMICAL WORKS AS PART OF THIS MAJOR INFRASTRUCTURE PROJECT."



BENEFICIAL RE-USE OF WASTE
 THE REDHILL SOIL TREATMENT FACILITY, OFFERING THE LARGEST PERMITTED CAPACITY IN THE SOUTH EAST WITH A 20 YEAR LIFESPAN.

HEALTH, SAFETY AND QUALITY

All of our operational staff are qualified to CSCS standard.

We are members of several SSIP registered schemes including Avetta, CHAS, Construction line, SMAS Worksafe and UVDB achillies.

We are licensed to undertake on-site soil and groundwater treatment under our Mobile Treatment Licenses in England and Wales (EAWML30379), Scotland (WML/L/1062905) and Northern Ireland (LN/11/35).

We have WAMITAB, COTC accredited personnel who ensure that remediation treatments are implemented to fully comply with Environment Agency requirements.

In 2011, Celtic won a Bronze Performance Beyond Compliance Award as part of the Considerate Constructors Scheme, and continue to comply with the scheme on many of our projects.

RECENT AWARDS

- **2015/2016/2017 WINNER**
Gold Award RoSPA Occupational Health and Safety Awards
- **2015 WINNER**
Best Public Participation - Brownfield Briefing Awards
- **2015 WINNER**
Green Apple Award for best environmental practice (Biogenie Soil Treatment Facilities)
- **2015 WINNER**
Gold Award RoSPA Occupational Health and Safety Awards



SOIL TREATMENT FACILITIES

Our Biogenie Soil Treatment facilities are operated as a joint venture with Biffa Waste Services, the leading nationwide integrated waste management business providing collection, treatment, recycling and technologically-driven energy generation services.

Materials that cannot be cost effectively treated on site may be treated off site at our Soil Treatment Facilities, enabling us to offer our clients another cost and risk management tool.

With established national coverage our facilities can treat soils which have been classified as WAC failing hazardous waste. These wastes are treated rather than disposed to landfill.

The resulting soil is re-used beneficially for restoration and landscaping. The service is exempt from landfill tax, delivering significant cost savings as well as a sustainable option to our clients over disposal to landfill.

We provide a flexible and responsive service, providing same day waste authorisations and complete visibility and transparency with guaranteed discharge of your Duty of Care responsibilities.





IN-SITU STABILISATION
 UTILISING SPECIALIST MIXING PLANT
 CELTIC WERE ABLE TO MINIMISE
 DISTURBANCE AND MAXIMISE
 SUSTAINABILITY WHILST REMEDIATING
 THIS FORMER GASWORKS.



THERMAL REMEDIATION
 CELTIC PARTNER
 WITH HAEMERS
 TECHNOLOGIES TO
 APPLY FAST, RELIABLE
 AND COMPLETE
 TREATMENT OF ORGANIC
 CONTAMINANTS VIA
 IN-SITU AND EX-SITU
 THERMAL DESORPTION.

DELIVERED TECHNOLOGIES

We have experience in the design and delivery of some 35 remediation techniques for the treatment of contaminated soils, groundwater, sediment, sludges and tars.

These techniques have been proven at full commercial scale through the remediation of over 1,000 sites and the on-site treatment of over 5 million tonnes of soil and over a billion litres of water.

Celtic has invested in over £2 million of remediation plant exclusively available to our remediation projects.

Our in-house plant allows us to deploy rapidly to site to meet your programme and avoid long lead times. By investing in, and managing, our own plant we can offer a wide range of remediation techniques at competitive rates.

We have gained regulatory approval from the validation and 'close out' for all of the sites that we have remediated.

In-Situ Soil, Sediment, & Sludge Treatment Technologies

- Solidification / Stabilisation
- Thermal Desorption
- Bioventing
- Enhanced Aerobic Bioremediation
- Enhanced Anaerobic Bioremediation
- Chemical Oxidation
- Soil Vapour Extraction

Ex-Situ Soil, Sediment & Sludge Treatment Technologies

- Biopiles
- Solidification / Stabilisation
- Thermal Desorption
- Land farming
- Segregation
- Centrifugation
- Dry Screening
- Soil Washing
- Excavation & Off-Site Treatment or Disposal
- Composting
- Windrow Turning

Groundwater and Surface Water Treatment and Containment Technologies

- Air Sparging
- High Vacuum Extraction / Bioslurping
- Chemical Oxidation
- Dual Phase Extraction
- Thermal Treatment
- Zero Valent Iron Injection
- Passive / Reactive Treatment Walls
- Physical Barriers
- Deep Well Injection
- Hydraulic Containment
- Electrokinetic Treatment
- Enhanced Aerobic Bioremediation
- Enhanced Anaerobic Bioremediation
- Monitored Natural Attenuation
- NAPL Recovery (LNAPL / DNAPL)
- Total fluids recovery
- Surfactant Enhanced Recovery / Flushing
- CO2 Supersaturated Water Injection
- Constructed Wetlands

Ex-Situ Water Treatment

- Air Stripping
- Activated Carbon Adsorption
- Bioreactors
- Coagulation / Flocculation / Precipitation
- Dissolved Air Filtration
- Methane Stripping
- Nano Filtration / Ultra Filtration
- Ozone Oxidation
- Reverse Osmosis
- Sand Filtration

Vapour / Off-Gas Treatment

- Activated Carbon Adsorption
- Biofiltration
- Catalytic Oxidation
- Gas Scrubbing



CONTACT US

We operate from regional offices in Cardiff, Reading and Warrington, and Soil Treatment Facilities in the Midlands, Leeds and M25 catchment.

To speak to our experts please contact us -

t 01189 167340

e enquiries@celtic-ltd.com

e sales@biogenie.com

For more information on our services please visit our websites -

www.celtic-ltd.com

www.biogenie.co.uk

www.englbecorp.com

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