



Brilliant Environmental Services, LLC (*Brilliant*) is a full-service environmental consulting firm, integrating today's technologies for tomorrow's solutions. Headquartered in New Jersey, *Brilliant* specializes in investigation, remediation, brownfields redevelopment, and underground storage tank services. *Brilliant* is the underground storage tank compliance expert.

***Brilliant* introduces its own YouTube channel.
Check us out! Frequent Updates.**

***Brilliant* Continues to Reorganize and Rebuild from 2019:
Announcing the Addition of New Staff in August 2020**

As much as COVID-19 has been a huge challenge for the world and a challenge to Brilliant, recovering from bankruptcy during a pandemic has been nothing short of a miracle. With an excellent staff, loyal clients and a group of vendors willing to stand by Brilliant, we are surviving. There is no time to celebrate, especially with the condition of America, but Brilliant is happy to not only maintain our business, but grow enough to hire two new staff members in August; both of whom were currently unemployed or underemployed.

On August 10, 2020 Brilliant will add these two new members to our team:

Robert Gill will join Brilliant as an Environmental Scientist II. With over 4 years of site remediation experience in New Jersey, Robert will work on underground storage tank remediation projects, as well as assist with Due Diligence projects, since he is not an LSRP. Robert has a degree in Earth Science from Kean University and is an Eagle Scout.

Olivia Morris will join Brilliant as an Environmental Scientist I. Olivia is a recent graduate of Rutgers University with a degree in Environmental Science. During her years at Rutgers she did not sit back eating at the grease trucks and watching bad football, but rather had several internships including one with an engineering firm providing support to the LSRPs. Olivia will be providing support to the LSRPs at Brilliant, as well as spending time in the field sampling.

We are excited to add Robert and Olivia to our team and are confident with

their addition, we will continue to serve our clients with the highest quality services and products.

NJ Remedial Action Extension Requests and Timeframe Reminders from NJDEP

In April 2017, the Site Remediation and Waste Management Program (SRWMP) issued "Administrative Guidance Regarding Compliance with Remedial Action Report Timeframes" (Guidance), available at: https://www.nj.gov/dep/srp/guidance/srra/rar_timeframe_compliance_guidance.pdf.

SRWMP strongly encourages parties preparing a remedial action extension request to review the information in the Guidance before making a submission.

Pursuant to N.J.A.C. 7:26C-3.5(a), extension requests must include a written rationale that is accompanied by data as justification for the extension. The Guidance was issued so PRCRs and their LSRPs are aware that extension requests are required to be supported with data, showing that attempts were made to meet the established remedial timeframe goals and aggressive timely attempts were made to modify remedial plans to accomplish the established remedial timeframe requirements. While SRWMP expects that some remedial action timeframe extensions will be justified, the ability to request an extension does not reconcile the failure to implement or modify a remedial action to implement a timely remediation.

On April 24, 2020, the NJ Department of Environmental Protection (Department) issued a Notice of Rule Waiver/Modification/Suspension pursuant to Executive Order No. 103, allowing for an automatic extension of certain timeframes. See

<https://www.nj.gov/dep/covid19regulatorycompliance/docs/srp-remedial-timeframes20200424.pdf> and https://www.nj.gov/dep/srp/srra/listserv_archives/2020/202006_01_srra.html.

Mandatory Timeframe requests are required to be submitted no later than 60 days prior to the end of the mandatory remediation timeframe, pursuant to N.J.A.C. 7:26C-3.5(a)1. Regulatory Timeframe extension requests are required to be submitted no later than 30 days prior to the end of the regulatory remediation timeframe in accordance with N.J.A.C. 7:26C-3.2(b)1. The Department requests that no timeframe extension request be submitted more than 6 months prior to the established timeframe. This will allow for the PRCR and LSRP to provide the most current data and status of the remediation to support the timeframe extension submission.

Brilliant works daily to provide clear understanding and compliance assistance with each and every client and each and every call. With three (3) LSRPs on staff and a staff with over 100 years of combined professional experience, we are here to help you. If you have any compliance questions, need assistance or a proposal, please contact [Phil Brilliant](#). Check us out on line - [Brilliant](#).



Mobile High Vacuum Extraction
Whether HIT, HEAT, EFR or MPR - It Works to
Recovery Product and Remedy Hotspots of
Soil or Groundwater Contamination

Dual-phase extraction, also known as multi-phase extraction, vacuum-enhanced extraction, or bioslurping, is an in-situ technology that uses pumps to remove various combinations of contaminated groundwater, separate-phase petroleum product, and hydrocarbon vapor from the subsurface. Extracted liquids and vapor are treated and collected for disposal, or re-injected to the subsurface (where permissible). Dual-phase extraction systems can be effective in removing separate-phase product from the subsurface, thereby reducing concentrations of petroleum hydrocarbons in both the saturated and unsaturated zones of the subsurface. Dual-phase extraction systems are typically designed to maximize extraction rates; however, the technology also stimulates biodegradation of petroleum constituents in the unsaturated zone by increasing the supply of oxygen, in a manner similar to bioventing.

DPE systems often apply relatively high vacuums to the subsurface. Thus, the adjective "high-vacuum" is sometimes used to describe DPE technologies, even though all DPE systems are not high-vacuum systems. DPE technologies can be divided into two general categories, depending on whether subsurface liquid(s) and soil vapor are extracted together as a high-velocity dual-phase (liquid(s) and vapor) stream using a single pump or whether the subsurface liquid(s) and soil vapor are extracted separately using two or more pumps. Single-pump systems rely on high-velocity airflow to lift suspended liquid droplets upwards by frictional drag through an extraction tube to the land surface. Single-pump vacuum extraction systems can be used to extract groundwater or combinations of separate-phase product and groundwater. The somewhat more conventional dual-pump systems use one pump to extract liquids from the well and a surface blower (the second pump) to extract soil vapor.

Single-pump DPE systems represent a recent adaptation of this long-

established technology to the task of subsurface remediation. Single-pump DPE systems are generally better suited to low-permeability conditions, and they are difficult to implement at sites where natural fluctuations in groundwater levels are substantial. Single-pump DPE technology is sometimes referred to as bioslurping. Dual-pump DPE systems are simply a combination of traditional soil vapor extraction (SVE) and groundwater (and/or floating product) recovery systems. Dual-pump systems tend to be more flexible than single-pump systems, making dual-pump systems easier to apply over a wider range of site conditions (e.g., fluctuating water tables, wide permeability ranges); however, equipment costs are higher.

The vacuum applied to the subsurface with DPE systems creates vapor-phase pressure gradients toward the vacuum well. These vapor-phase pressure gradients are also transmitted directly to the subsurface liquids present, and those liquids existing in a continuous phase (e.g., water and "free" petroleum product) will flow toward the vacuum well in response to the imposed gradients (the term "free" product is a commonly used, though imprecise term because a greater fraction of resident petroleum product may be recovered using vacuum-enhanced DPE compared to the fraction of product recoverable using gravity drainage alone). The higher the applied vacuum, the larger the hydraulic gradients that can be achieved in both vapor and liquid phases, and thus the greater the vapor and liquid recovery rates.

The depressed groundwater table that results from these high recovery rates serves both to hydraulically control groundwater migration and to increase the efficiency of vapor extraction. The remedial effectiveness of DPE within the zone of dewatering that commonly develops during DPE application should be greater than that of air sparging due to the more uniform air flow developed using DPE.

Brilliant's staff and operators will work with you to assure that your events whether pilot studies, product recovery or remedial action implementation provide you with the most efficient, cost effective and productive results. *Brilliant's* fleet of units allow us to meet your needs and time constraints so contact us today. Contact [Jon Libourel](#) at (732) 818-3380.

BRILLIANT CAN ASSIST YOU!

Brilliant is your advocate in identifying all of the options available to you...not just what's on the surface; affording you high-quality, personalized service without the high cost. We remain available and mobile to address any size project and prepared to meet with you to discuss your environmental needs. We are making improving our company daily to better service you today and into the future. Call us today at (732) 818-3380 or [email us](#).



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