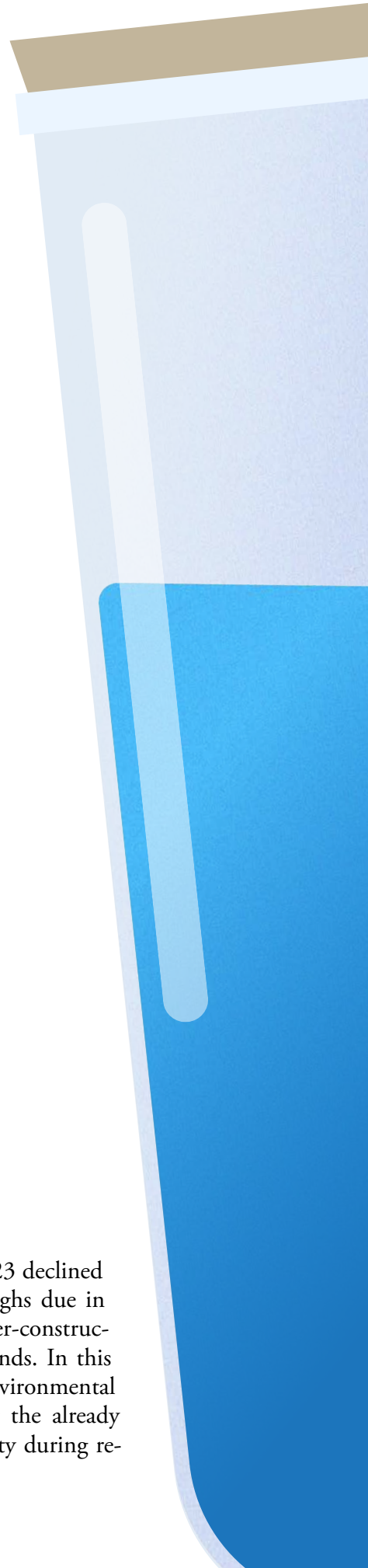


New Contamination Rate Data Could Help Banks Better Assess Environmental Risk

By Kathryn Peacock

A “WALL” OF maturing commercial real estate (CRE) loans is approaching amid tumultuous conditions for office properties and other property types. Commercial

property values at the end of 2023 declined 22% from their March 2022 highs due in part to rising interest rates, over-construction, and shifting occupancy trends. In this context, the assessment of environmental risk—and its potential to affect the already challenged valuation of a property during re-



financing, selling, extension, and in the worst-case scenario, foreclosure—is more important than ever.

Now, new data, coined “contamination discovery rates” (CDRs) is available to the commercial real estate community that provides statistics on the frequency of contamination associated with various property types. CDRs can be useful tools to help lenders decide on a path forward when environmental risk appears. This article provides select information on an Environmental Bankers Association study that determined the rate of contamination for various property types where contamination was suspected and the average costs for environmental investigation reports.

A bank might use a CDR to inform a set aside/escrow, or to help inform the decision on whether to conduct testing. CDRs can also help banks identify which kinds of land uses present risk and if that risk aligns with their risk appetite.

Lenders typically require environmental risk assessments as part of their credit evaluation of potential CRE loans. They want to ensure that borrowers are not exposed to contamination or other problems that might impair the ability to repay a loan or affect the value of loan collateral. After all, addressing contamination can potentially cost more than the borrower can pay, or devalue a property to less than its appraised price. And if a borrower defaults, environmental issues might stop the lender from

foreclosing or make a property sale challenging without a steep discount or an indemnification agreement protecting the seller.

Lenders are protected from liability for environmental contamination on properties they finance under the secured creditor exemption and the Comprehensive Environmental Response, Compensation, and Liability Act ([CERCLA](#)). However, it is standard practice for banks to require a widely accepted method for identifying environmental risk: the Phase I Environmental Site Assessment (ESA) conducted in accordance with the American Society for Testing and Materials 1527-21 standard and the Environmental Protection Agency’s All Appropriate Inquiries (AAI) rule.

If the Phase I ESA identifies a recognized environmental condition (REC), a Phase II ESA is then conducted to evaluate a property’s subsurface—including soil, soil gas, indoor air, and/or groundwater—to identify the presence and degree of environmental impacts.

A Phase II ESA can help determine long-term environmental cleanup costs associated with the property, and is a more involved, timely, and expensive process than a Phase I ESA.

The average cost of a Phase I ESA nationwide ranges from the low \$2,000s to the low \$3,000s, with the cost varying depending on the complexity, location, and nature of the site, as well as the timing of the deal. It’s important to note that not all Phase I ESAs are created equal, and price does matter. When written in accor-

dance with ASTM 1527-21 and conducted by a qualified firm, this level of effort has a minimum cost associated with it. In other words, beware of low-cost Phase I ESAs.

According to a 2023 nationwide survey by the Environmental Bankers Association (EBA) of Phase II ESAs conducted over the past five years across diverse property types, the average cost of a Phase II ESA is \$12,785. Banks often pass these expenses to borrowers, but delays in the closing process and other complications that can be triggered by issues around the Phase II ESA can have their own costs for banks. When environmental-related problems arise right before loan closing, it can be challenging to weigh the potential risk against the cost of losing a deal to a competitor. That is when referring to contamination discovery rates, which quantify the frequency that problems are detected by property type with a Phase II ESA, can be beneficial.

New Data To Judge Risk

The EBA study provides insight into CDRs to support CRE lenders as they make environmental risk profiling and testing decisions. This study has been conducted by the EBA three times: in 2012, 2015, and most recently in 2023. The 2023 study was conducted in collaboration with 15 of the EBA’s member organizations.

All three studies analyzed Phase II data from traditionally sensitive property types—including gas stations and

dry cleaners—from a total of approximately 3,400 reports across the U.S. Data from these studies were compiled into statistics showing contamination rates for each of the studies among these properties. As shown in Table 2, 70% to 80% of those reports revealed some form of contamination, depending on the year. Importantly, 40% to 54% of those sites showed contamination at levels above a regulatory standard for its location, which typically means additional action or investigation is required. For lenders, this data demonstrates that a Phase II ESA uncovers the need for further action about half the time—the flip of a coin for deciding whether to further explore the environmental risk.

What a Phase II ESA Usually Finds

A Phase II ESA tests for the presence or absence of contamination at a depth and breadth determined by the requestor. The scope and cost, therefore, tend to vary. Targeting the right media to evaluate—as noted: soil, soil gas, indoor air, and/or groundwater—is important, as are the sampling methods.

In the EBA study, contamination most commonly appeared in soil gas, followed by the groundwater. Over the past decade, robust soil gas testing has emerged as an industry standard, but when the study began, ASTM-1527 was just beginning to recognize vapor as a contaminant pathway. While data on soil gas contamination was unavailable in the first years

of the study, the overall findings showed that almost one in two sites registered contamination of soil vapor at levels above regulatory standards; more than one in three, meanwhile, registered the same for groundwater.

By property type, “sensitive” sites are those that tend to contaminate more than others. They include manufacturing facilities, gas stations, dry cleaners, and auto repair shops, but aren’t limited to those. At a high level, properties typically are categorized as residential, commercial, and industrial and are subject to the regulatory standards applied to their class. Multifamily properties, for example, are subject to residential standards.

The 2023 study looked at 10 sensitive property types to gauge how frequently a Phase II ESA detects contamination both above and below a regulatory standard (this includes both residential, commercial, and industrial standards). These frequencies, or CDRs, ranged greatly depending on the property type. As previously discussed, the overall data demonstrates that a Phase II ESA uncovers the need for further action about half the time. When this data is

Table 1. Initial Phase II Cost. Note that the majority of Phase IIs in the study were for financing purposes.

Average Cost of a Phase II ESA	
Minimum	\$4,100
Average	\$12,785
Maximum	\$60,000

Table 2. How Often Does a Phase II ESA Detect Contamination?

Year	Number of Sites	Contamination Detected %	Contamination Detected Above Regulatory Standards(%)
2012	452	70%	40%
2015	1,167	76%	44%
2023	1,755	80%	54%

drilled into more deeply, certain property types reveal themselves as carrying more risk, or having a higher CDR, such as plating facilities, metal fabrication, and dry cleaners.

The Cost of Cleanup

Fixing contamination isn't easy or cheap. Though the presence of environmental contamination won't always involve big cleanups or kill a loan deal, it

can add significant cost and complexity to the underwriting. Costs can include investigating and remediating the damage; the effects of a damaged reputation; and dealing with poten-

Table 3. How Often Does a Phase II ESA Detect Contamination and Where Is It Typically Detected?

Media	Total Number of Sites	Contamination Detected %	Contamination Detected Above Regulatory Standards(%)
Soil	1,341	73%	27%
Groundwater	700	65%	37%
Soil Gas	1,187	77%	47%
Indoor Air	495	37%	23%

Table 4. Contamination Discovery Rates (CDRs) by Property Type. Note that sites with clean Phase I ESAs are not included in this study.

Media	Contamination Detected %	Contamination Detected Above Regulatory Standards(%)
Off-Site Issues	85%	68%
Plating	82%	66%
Metal Fabrication	72%	60%
Dry Cleaners	71%	50%
Historical Manufacturing	72%	48%
Auto Service	66%	32%
USTs	65%	31%
Commercial Print Shops	48%	24%
Heating Oil USTs	45%	19%
ASTs - Bulk Storage	45%	16%

Table 5. Remedial Cost Estimates by Property Type

Property Type	Low	Average	High
USTs	\$400,000	\$500,000	\$1,962,000
Drycleaners	\$250,000	\$400,000	\$2,667,000

tial declines in the value of the property, its surrounding properties, and revenue.

The EBA data captured the costs of investigation and cleanup only for two types of properties and was supplemented by information from state environmental cleanup trust funds and the State Coalition for Remediation of Drycleaners. Having a remedial cost estimate developed by a qualified consultant for a contaminated property can help banks accurately identify the borrower's ability to address the problem while maintaining solvency.

The remedial cost estimates in the table below consist of the costs to investigate and remediate a site, but do not account for other significant costs, damages, and other expenses such as loss of revenue due to uninhabitability, stigma damages, diminution in value, potential liability from contamination migrating beyond site boundaries, and property damage claims from adjacent landowners. However, they do demonstrate the potentially significant costs of remediation associated with two of the most common "bad actors"—underground storage tanks (USTs) and dry cleaners. Interestingly, the CDR for USTs fell below

the average, demonstrating that a below-average CDR does not necessarily translate to a low cleanup cost.

New Data, New Insight

"Although site-specific Phase II investigation data can vary greatly, the contamination discovery rate provides another useful tool in our environmental risk management toolbox to help environmental lenders estimate the likelihood of material environmental impacts on collateral," said Cyndy Wagner, senior vice president and chief environmental risk officer at U.S. Bank. "The value of the CDR project will continue to increase as more Phase II sampling data is incorporated in the findings."

Said John Thomas Rybak, senior vice president and environmental risk manager at Truist, "Analysis of Phase II data and trends will help risk managers understand the materiality of the specific risks that we face in our lending decisions."

As lenders evaluate the risk of maturing CRE loans in the coming years and explore opportunities for extending new credit, understanding environmental risk will be one important factor, among many, to consider. The results of the EBA study provide stakeholders with an additional layer of informa-

tion when determining risk for CRE transactions.®

Notes:

The EBA is a nonprofit trade association dedicated to promoting best practices that protect and preserve the net income and assets of banks and other financial institutions from environmental risks and liabilities associated with lending activities. Through benchmarking, collaboration, and the sharing of ideas, the EBA offers valuable educational opportunities to financial professionals, regardless of their environmental expertise. Website: envirobank.org

Due to the magnitude of this project, the EBA offers its sincere thanks to the 15 participating member firms that made this project possible. These firms include Partner Engineering and Science, Inc., AEI Consultants, AKT Peerless, Atlas, CBRE, EFI Global, Green Environmental Management, GZA, Molen & Associates, Nova Group, PM Environmental, Terracon, Tetra Tech, TGE Resources, and Wasatch Environmental.



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