

# Standard of Care for Phase I Environmental Site Assessments 2007 - 2010

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# Prior Investigations

- 1987 Survey
- 1988 Survey
- Pre-acquisition Site Assessments:  
Recommended Management Procedures
- 1990 Survey and Report Review
- 1992 Report Review
- 1994 Report Review
- 1997-98 Report Review

# Why 2007 – 2010?

- ASTM E1527-05 was well established in the marketplace
- EPA, in its preamble to the rulemaking that declared the 2013 version of the ASTM standard compliant with AAI, stated that one of the biggest changes in ASTM was the inclusion of an affirmative evaluation of the potential for contaminant migration to the Site in the vapor-phase. EPA determined this was compliant with AAI because vapor-phase migration should have always been included in a Phase I ESA, anyway.
- ASTM's vapor encroachment standard became well-established after its publication in 2010.

# This Study

- 209 Reports
- 98 Firms
- 40 to 55 reports for each year (2007 – 2010)

Midwest	Northeast	South	West
IA, IL, IN, KS, MI, MN, ND, NE, OH, SD, WI	CT, MA, ME, NH, NJ, NY, PA, RI, VT	AL, AR, DC, DE, FL, GA, KY, LA, MD, MS, NC, OK SC, TN, TX, VA, WV	AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY
29 Reports	15 Reports	104 Reports	61 Reports
Number of reports by States by US Census Region			

# ASTM Report Review

➤ Based on structure of ASTM E1527-05

GBA Standard of Care Survey														
Complete prior to report review					Reviewer's Name	Gov't Records						Physical Setting		
REPORT INFORMATION				Gov't		Search					Topographic Maps			
No.	State	Census Region	Year	Databases		Radius Mod?	Std Srcs?	Addl Srcs?	Date?	Staff?	File rev?	Historic	Current	Aerials
300	IL	MW	2009	McCorkle	Commercial	No	Yes	Yes	Yes	No	No	No	Yes	Yes
301	MN	MW		Samford	Commercial	No	Yes	No		No	Yes	No	Yes	Yes
302	MN	MW	2010	McCorkle	Commercial	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
303	MN	MW	2007	McCorkle	Commercial	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
304	MN	MW	2011	McCorkle										
305	GA	SO	2009	McCorkle	Commercial	No	Yes	Yes	Yes	No	No	No	Yes	Yes
306	TX	SO		Samford	Commercial	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes
307	TX	SO	2009	Graf	Commercial	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes
308	UT	W	2008	Graf	Commercial	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
309	UT	W	2008	Graf	Commercial	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
310	UT	W	2008	McCorkle	Both	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes
311	MN	MW	2011	Covert	Commercial	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes
312	MN	MW	2010	Covert	Commercial	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
313	MN	MW	2008	Covert	Commercial	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes

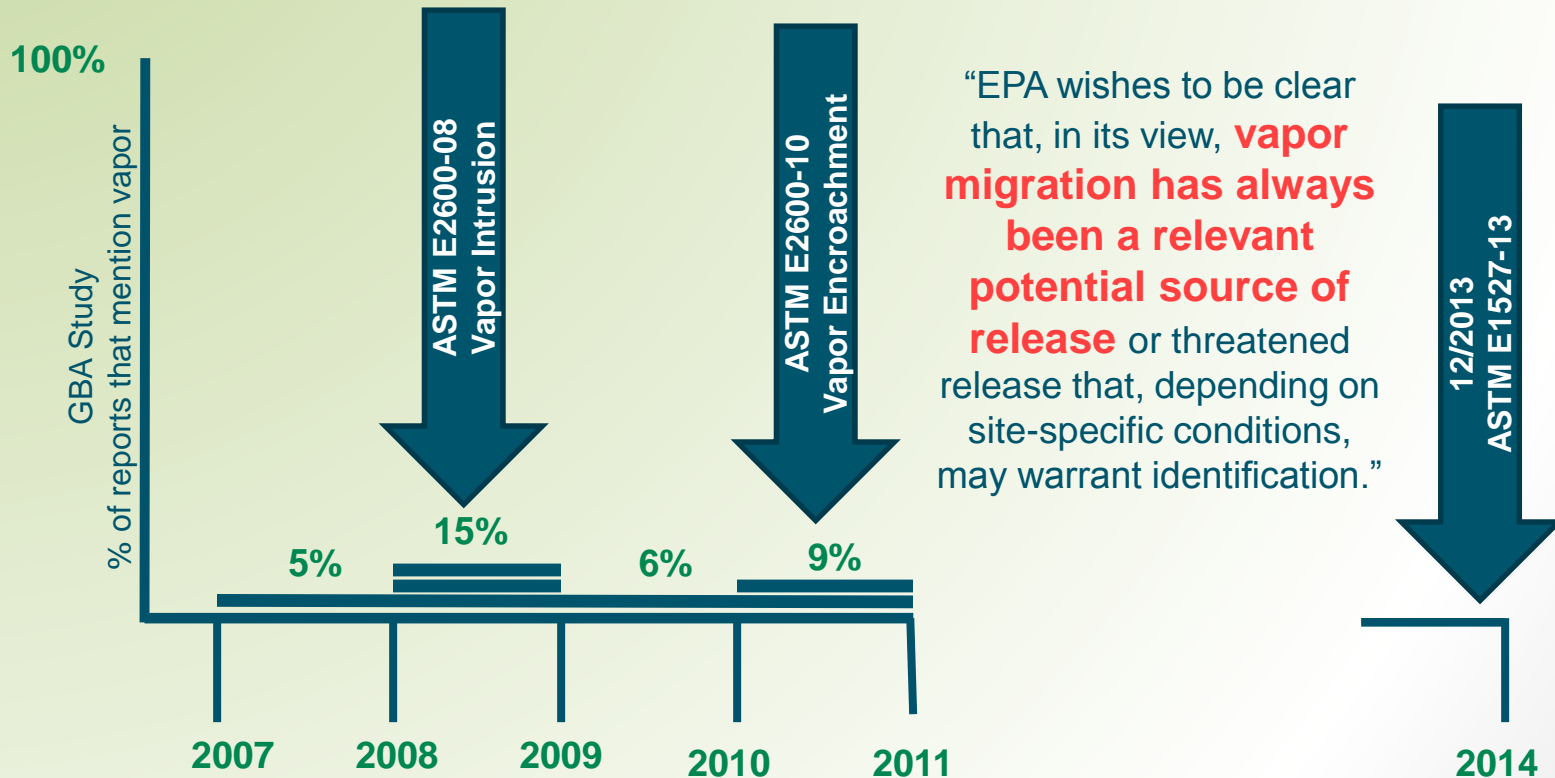
# Key Findings

1. Strict compliance with all procedures in the ASTM E1527 standard is NOT the “standard of care.”
2. Significant variation in the content and presentation of ESA report deliverables.
3. Most (85% - 95%) consultants did not overtly discuss the potential migration of contaminants in the vapor phase.

# OBSERVED VARIATIONS FROM ASTM E1527

- EP Certifications not included.
- Site plans incomplete and highly variable.
- Conclusions language inconsistent with standard.
- Numerous references to 1527-00 standard after 1527-05 standard was in place.
- Interview requirements frequently not met.
- Inadequate documentation in appendices (e.g. aerial's, resumes).
- Report limitations included specific scope exclusions, then report discussed excluded items:
  - Vapor Intrusion
  - Asbestos

# ESA Vapor Timeline





# Next Steps

1. Complete standard of care document and distribute.
2. Prepare management guidance for GBA member firms with ESA report review checklist (ASTM conformance).
3. Conduct GBA ESA Standard of Care presentations for industry organizations (e.g. EBA, A&WMA, ABA).