

**ASBESTOS ROOF SURVEY**

Vacant Industrial Building

17475 Gale Avenue

City of Industry, California 92748

ATEC Project Number 43-07-9302112

Prepared for:

Mr. Greg Gilroy  
District Manager  
The RREEF Funds  
1630 South Sunkist Street, Suite A  
Anaheim, California 92806

April 27, 1993



# **ATEC Environmental Consultants**

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Solid & Hazardous Waste Site Assessments  
Remedial Design & Construction  
Underground Tank Management  
Asbestos Surveys & Analysis  
Hydrogeological Investigations & Monitoring  
Analytical Testing, Chemistry  
Industrial Hygiene, Hazard Communication  
Environmental Audits & Permitting  
Excavator, Drilling & Monitoring Wells

April 27, 1993

Mr. Greg Gilroy  
District Manager  
The RREEF Funds  
1630 South Sunkist Street, Suite A  
Anaheim, California 92806

RE: ASBESTOS ROOF SURVEY  
Vacant Industrial Building  
17475 Gale Avenue  
City of Industry, California 91748  
ATEC Project Number 43-07-9302112

Dear Mr. Gilroy:

ATEC Environmental Consultants (ATEC) is pleased to present the following asbestos bulk survey report for roofing materials on a vacant industrial building located at 17475 Gale Avenue in the City of Industry, California. This survey was performed in accordance with the verbal and written authorization of The RREEF Funds.

This report presents the location of fifteen (15) bulk roofing material samples collected and their analytical results. Based upon the samples analyzed, the building roof does not have asbestos-containing material.

We trust this information is sufficient for your current needs. If there are any questions regarding this work, please do not hesitate to contact ATEC's Irvine office at (714) 753-8100. We look forward to working with you on future projects.

Sincerely,

**ATEC ENVIRONMENTAL CONSULTANTS**

Louis Reyes  
Environmental Specialist  
Industrial Hygiene Services

Robert A. Brounstein, CSP  
Department Manager  
Industrial Hygiene Services

302112.asb:

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## 1.0 INTRODUCTION

ATEC was retained by The RREEF Funds to perform an Asbestos Roof Survey at the vacant industrial building located at 17475 Gale Avenue, in the City of Industry, California.

An ATEC representative conducted an asbestos roofing survey on April 16, 1993. A preliminary site walk was made to determine the physical extent of potential asbestos-containing roofing materials at the site. The scope of services performed for the asbestos bulk survey included the following items:

- Identification and collection of roofing samples suspected of containing asbestos.
- Analysis of each bulk sample utilizing Polarized Light Microscopy (PLM) and Dispersion Staining Techniques in accordance with EPA Bulk Analysis Method EPA 600/M-82-020.
- Issuance of a report which details the findings based upon the visual inspection and laboratory test results.

## 2.0 PROJECT CHARACTERISTICS

The site covers approximately 221,136 square feet of land and is irregularly shaped. Presently, the building is unoccupied.

The inspection and bulk sampling of the roofing was conducted on April 16, 1993, by Louis Reyes, Industrial Hygienist with the ATEC-Irvine office and Don Oliver with Lee Roofing of Costa Mesa, Inc. (Contractors License #349686). Mr. Reyes is an Asbestos Hazard Emergency Response Act (AHERA)-accredited Building Inspector.

## 3.0 SURVEY METHODS

As suspect ACMs were identified, bulk samples were taken and placed into individual vials for transportation to the laboratory. Sampling of suspect materials was performed by removing a small portion to obtain representative samples of the different layers of suspect material. All sample locations are identified by a numbered label. These numbers correspond with the numbers listed in the Suspect ACM Tables in Appendix A and the Laboratory Test Results in Appendix B.

A random sampling grid was used to select sampling areas for suspect materials. Steps for sampling of roofing materials are set forth below.

1. Put on protective equipment (respirator at all times, protective clothing, if needed).
2. Label container with its identification number, sample location, and type of material sampled on a sampling data form. Always place the label on the container itself, not on the lid, as lids can be inadvertently switched by a laboratory when handling numerous sample containers.
3. Mark the location of the sample on the sampling diagram and record the sample identification number on the plan diagram as well.

4. Moisten area where sample is to be extracted (spray the immediate area with water).
5. Extract sample using a clean knife to cut out or scrape off a small piece of the material. Be sure to penetrate all layer of material. Be careful not to disturb adjacent material.
6. Place sample in a container and tightly seal it.
7. Wipe the exterior of the container with a wet wipe to remove any material which may have adhered to it during sampling.
9. Fill hole with non-asbestos roofing mastic material.
10. Repeat the above steps at each sample location. Place sample containers in plastic bags.
11. Discard protective clothing, wet wipes and rags, cartridge filters, and drop cloth in a labeled plastic bag. Seal and retain the bag as asbestos-contaminated waste if tests were positive for asbestos. (Labels should read: "Danger - Contains Asbestos Fibers - Avoid creating Dust - Cancer and Lung Disease Hazard". Disposal should be made in a state-approved landfill.) Note: Unless every sample tests negative for asbestos, discard waste as asbestos containing material.
12. Sample locations are diagrammed on the building layout Figure 1 in Appendix C.

#### 4.0 LABORATORY ANALYSIS

All bulk sample analyses were performed by the ATEC laboratory in Miami, Florida which is a United States Environmental Protection Agency (US EPA) accredited laboratory and participates in the National Voluntary Laboratory Accreditation Program (NVLAP). All samples were analyzed utilizing dispersion staining techniques according to the US EPA Interim Method EPA 600/M4-82-020. This type of analysis requires the microscopist to take a portion of the bulk sample and treat it with an oil of a refractive index. Each type of asbestos displays unique characteristics when subjected to these tests. Percentage of the

identified types of asbestos are determined by visual estimation. Even though a visual estimation is performed, any material that contains over one percent (1%) asbestos is considered ACM and must be handled according to US EPA regulations, if disturbed. Laboratory results are included in Appendix B.

## 5.0 INSPECTION AND SAMPLING RESULTS

A total of fifteen (15) bulk samples of suspect asbestos-containing roofing materials were collected and analyzed. ATEC's investigation identified three (3) different homogeneous areas. These are areas where materials appear similar in color and texture, and have the approximate same dates of construction.

These three homogeneous materials are as follows:

1. One (1) type of roof shingle
2. One (1) type of roof mastic
3. One (1) type of field roof

The location of these materials are identified on Figure 1 in Appendix C.

Of these three (3) homogeneous areas, none were identified as asbestos-containing.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

None of the 15 suspected asbestos-containing roofing material samples were determined to be positive for asbestos. As a result, no recommendations are being offered to The RREEF Funds with regard to roofing materials.

## 7.0 QUALIFICATIONS

This report is designed to assist the building owner, architect, construction manager, general contractors, and potential asbestos abatement contractors in locating the asbestos containing materials. Under no circumstances is this report to be utilized as a bidding document or as a project specification document.

Our inspection was non-destructive. Non-destructive sampling entails only visually inspecting the conditions and/or materials which are accessible. It is not within the scope of this investigation to remove surfacing materials which are not accessible, visible, or to remove materials beneath the surface. Our selection of sampling locations and frequency of taking samples is based upon the assumption that like materials are homogeneous throughout the site.

The results, conclusions and recommendations expressed in this report are based only on conditions which were observed during the site inspection. In this report, ATEC makes no representation or assumptions as to past conditions or future occurrences.

Our professional services have been performed, our findings and our recommendations have been prepared in accordance with state of the art customary principles in the fields of environmental science and engineering. This warranty is in lieu of all other warranties either expressed or implied.

APPENDIX A

SUSPECT ACM TABLES

Appendix A  
 ATEC Environmental Consultants  
 Vacant Industrial Building  
 ATEC Project Number 43-07-9302112  
 Suspect ACM Sample Table  
 Page 1

SAMPLE #	HA #	SAMPLE TYPE	LOCATION	BULK ESTIMATE	% OF ASBESTOS	ASBESTOS TYPE	FRIABLE
#001	01	RS	Southeast corner of roof. Black color.	N/A	N/A	ND	N/A
#002	02	RS	Middle of sout corner of roof. Black color.	N/A	N/A	ND	N/A
#003	01	RS	15th feet south to north from sample #002. Black color.	N/A	N/A	ND	N/A
#004	01	RS	Southwest corner of Roof. Black color.	N/A	N/A	ND	N/A
#005	01	RS	West edge of roof. Black color.	N/A	N/A	ND	N/A

Appendix A - Page 2

SAMPLE #	IIA #	SAMPLE TYPE	LOCATION	BULK ESTIMATE	% OF ASBESTOS	ASBESTOS TYPE	FRIABILITY
#006	01	RS	Northwest corner of roof. Black color.	N/A	N/A	ND	N/A
#007	01	RS	Northeast corner of roof. Black color.	N/A	N/A	ND	N/A
#008	01	RS	Middle of far east edge of roof. Black color.	N/A	N/A	ND	N/A
#009	01	RS	25 feet from east to west from sample #008. Black color.	N/A	N/A	ND	N/A
#010	02	RM	40 feet from east to west and 50 feet from north to south. Black color.	N/A	N/A	ND	N/A
#011	03	FR	25 feet north to south from sample #010. Grey/Black color.	N/A	N/A	ND	N/A
#012	02	RM	Middle of roof. Black color.	N/A	N/A	ND	N/A

SAMPLE #	H/A #	SAMPLE LOCATION TYPE	BULK ESTIMATE	% OF ASBESTOS	ASBESTOS TYPE	FRIABLE
#013	03	FIR Southeast corner of middle sky light. Grey/Black color.	N/A	N/A	ND	N/A
#014	03	FIR 10 feet from northeast to southwest of sample #012. Grey/Black color.	N/A	N/A	ND	N/A
#015	03	FIR 10 feet from north to south, adjacent to cooling tower. Grey/Black color.	N/A	N/A	ND	N/A

LEGEND:

RS - Roof Shingle  
 RM - Roof Mastic  
 FR - Field Roof

YES - Friable Asbestos  
 NO - Non-Friable Asbestos  
 ND - None Detected  
 N/A - Not Applicable

APPENDIX B  
LABORATORY RESULTS

**REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS**

<b>CLIENT: RREEF</b>		<b>PROJECT:</b> Vacant Industrial Building		<b>CLIENT #:</b>	<b>REPORT #:</b>
<b>ADDRESS: 17475 Gale Avenue</b>				<b>PROJECT #:</b> 9302112	<b>BATCH #:</b> 916718
<b>SAMPLE IDENTIFICATION DATA:</b>					
<b>Sample Identification</b>	<b>001</b>	<b>002</b>	<b>003</b>	<b>004</b>	
<b>Location / Description</b>	SE Corner Of	Middle Of South	15ft South To	SW Corner	
	Roof	Corner/Roof	North From	Of Roof	
	Black	Black	Sample #002	Black	
			Black		
<b>Gross sample appearance</b>	Roof Material	Roof Material	Roof Material	Roof Material	
<b>Sample color</b>	Black	Black	Black	Black	
<b>Material homogeneous</b>	Yes	Yes	Yes	Yes	
<b>Sample layered</b>	Yes	Yes	Yes	Yes	
<b>Sample friable</b>	No	No	No	No	
<b>Sample fibrous</b>	Yes	Yes	Yes	Yes	
<b>ASBESTOS CONTENT:</b>					
<b>Asbestos present</b>	None Detected	None Detected	None Detected	None Detected	
<b>Chrysotile % present</b>					
<b>Amosite % present</b>					
<b>Crocidolite % present</b>					
<b>Other (Specify) % present</b>					
<b>OTHER FIBROUS MATERIALS PRESENT:</b>					
<b>Fibrous glass % present</b>	5-10	10-20	10-20	10-20	
<b>Cellulose % present</b>		2-5	2-5	2-5	
<b>Synthetics % present</b>					
<b>Other (Specify) % present</b>					
<b>OTHER NON-FIBROUS MATERIALS PRESENT:</b>					
<b>Major component material</b>	Asphaltic Matrix	Asphaltic Matrix	Asphaltic Matrix	Asphaltic Matrix	
<b>Percent of total sample</b>	90-95	80-90	80-90	80-90	
<b>Remarks</b>					

The sample components are identified by Polarized Light Microscopy (PLM), coupled with dispersion staining methods. Percentages are estimated by visual volumetric means. Analytical procedure used does not include point-count analysis.

Analyzed by: John J. Gomolka

Date Analyzed: 04/19/93

Respectfully submitted by,  
**ATEC ASSOCIATES, INC.**

NVLAP Certificate Lab # 1265-08

Jean K. Taieb  
 Division Manager  
 Analytical Laboratory Services

# ATEC Associates, Inc.

9955 N. W. 116 Way, Suite 1  
Miami, Florida 33178-5126  
(305) 382-8200 FAX (305) 882-1200

## REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

<b>CLIENT: RREEF</b>	<b>PROJECT:</b> Vacant Industrial Building	<b>CLIENT #:</b>	<b>REPORT #:</b>
<b>ADDRESS: 17475 Gale Avenue</b>		<b>PROJECT #: 9302112</b>	<b>BATCH #: 916716</b>

SAMPLE IDENTIFICATION DATA				
Sample Identification	005	006	007	008
Location / Description	West Edge	NW Corner	NE Corner	Middle Of
	Area Of Roof	Of Roof	Of Roof	Far East Edge
	Black	Black	Black	Of Roof
				Black
Gross sample appearance	Roof Material	Roof Material	Roof Material	Roof Material
Sample color	Black	Black	Black	Black
Material homogeneous	Yes	Yes	Yes	Yes
Sample layered	Yes	Yes	Yes	Yes
Sample friable	No	No	No	No
Sample fibrous	Yes	Yes	Yes	Yes
ASBESTOS CONTENT				
Asbestos present	None Detected	None Detected	None Detected	None Detected
Chrysotile % present				
Amosite % present				
Crocidolite % present				
Other (Specify) % present				
OTHER FIBROUS MATERIALS PRESENT				
Fibrous glass % present	10-20	10-20	10-20	10-20
Cellulose % present	2-5	2-5	1-2	5-10
Synthetics % present				
Other (Specify) % present				
OTHER NON-FIBROUS MATERIALS PRESENT				
Major component material	Asphaltic Matrix	Asphaltic Matrix	Asphaltic Matrix	Asphaltic Matrix
Percent of total sample	80-90	80-90	80-90	70-80
Remarks				

The sample components are identified by Polarized Light Microscopy (PLM), coupled with dispersion staining methods. Percentages are estimated by visual volumetric means. Analytical procedure used does not include point-count analysis.

Analyzed by: John J. Gornolka

Date Analyzed: 04/19/93

Respectfully submitted by,  
ATEC ASSOCIATES, INC.

NVLAP Certificate Lab# 1265-08

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## REPORT OF BULK SAMPLE ANALYSIS FOR ASBESTOS

<b>CLIENT: RREEF</b>		<b>PROJECT:</b> Vacant Industrial Building		<b>CLIENT #:</b>	<b>REPORT #:</b>
<b>ADDRESS: 17475 Gale Avenue</b>				<b>PROJECT #:</b> 9302112	<b>BATCH #:</b> 918718
SAMPLE IDENTIFICATION DATA					
Sample Identification	009	010	011	012	
Location / Description	25ft From East	40ft From East	25ft North To	Middle Of Roof	
	To West From	to West And 50ft	South From	Black	
	Sample #008	From North To	Sample #010		
	Black	South/Black	Grey/Black		
Gross sample appearance	Roof Material	Roof Material	Roof Material	Roof Material	
Sample color	Black	Black	Black	Black	
Material homogeneous	Yes	Yes	Yes	Yes	
Sample layered	Yes	Yes	Yes	Yes	
Sample friable	No	No	No	No	
Sample fibrous	Yes	Yes	Yes	Yes	
ASBESTOS CONTENT					
Asbestos present	None Detected	None Detected	None Detected	None Detected	
Chrysotile % present					
Amosite % present					
Crocidolite % present					
Other (Specify) % present					
OTHER FIBROUS MATERIALS PRESENT					
Fibrous glass % present	10-20	10-20	10-20	10-20	
Cellulose % present	5-10	5-10	5-10	5-10	
Synthetics % present					
Other (Specify) % present					
OTHER NON-FIBROUS MATERIALS PRESENT					
Major component material	Asphaltic Matrix	Asphaltic Matrix	Asphaltic Matrix	Asphaltic Matrix	
Percent of total sample	70-80	70-80	70-80	70-80	
Remarks					

The sample components are identified by Polarized Light Microscopy (PLM), coupled with dispersion staining methods. Percentages are estimated by visual volumetric means. Analytical procedure used does not include point-count analysis.

Analyzed by: John J. Gomolka

Date Analyzed: 04/19/93

Respectfully submitted by,  
ATEC ASSOCIATES, INC.

NVLAP Certificate Lab #1265-08

Jean K. Taieb  
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<b>CLIENT: RREEF</b>		<b>PROJECT:</b> Vacant Industrial Building		<b>CLIENT #:</b>	<b>REPORT #:</b>
<b>ADDRESS: 17475 Gale Avenue</b>				<b>PROJECT #: 9202112</b>	<b>BATCH #: 916716</b>
SAMPLE IDENTIFICATION DATA					
<b>Sample Identification</b>	<b>013</b>	<b>014</b>	<b>015</b>		
<b>Location / Description</b>	SE Corner Of	10ft From NE	10ft From North		
	Middle Skylight	To SW Of	To South Adjacent		
	Adjacent To Air Duct	Sample #012	To Cooling Tower		
	Line/ Grey/Black	Black/Grey	Black/Grey		
<b>Gross sample appearance</b>	Roof Material	Roof Material	Roof Material		
<b>Sample color</b>	Black	Black	Black		
<b>Material homogeneous</b>	Yes	Yes	Yes		
<b>Sample layered</b>	Yes	Yes	Yes		
<b>Sample friable</b>	No	No	No		
<b>Sample fibrous</b>	Yes	Yes	Yes		
ASBESTOS CONTENT					
<b>Asbestos present</b>	None Detected	None Detected	None Detected		
<b>Chrysotile % present</b>					
<b>Amosite % present</b>					
<b>Crocidolite % present</b>					
<b>Other (Specify) % present</b>					
OTHER FIBROUS MATERIALS PRESENT					
<b>Fibrous glass % present</b>	10-20	10-20	10-20		
<b>Cellulose % present</b>	5-10	5-10	5-10		
<b>Synthetics % present</b>					
<b>Other (Specify) % present</b>					
OTHER NON-FIBROUS MATERIALS PRESENT					
<b>Major component material</b>	Asphaltic Matrix	Asphaltic Matrix	Asphaltic Matrix		
<b>Percent of total sample</b>	70-80	70-80	70-80		
<b>Remarks</b>					

The sample components are identified by Polarized Light Microscopy (PLM), coupled with dispersion staining methods. Percentages are estimated by visual volumetric means. Analytical procedure used does not include point-count analysis.

Analyzed by: John J. Gomoika

Date Analyzed: 04/19/93

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 Division Manager  
 Analytical Laboratory Services

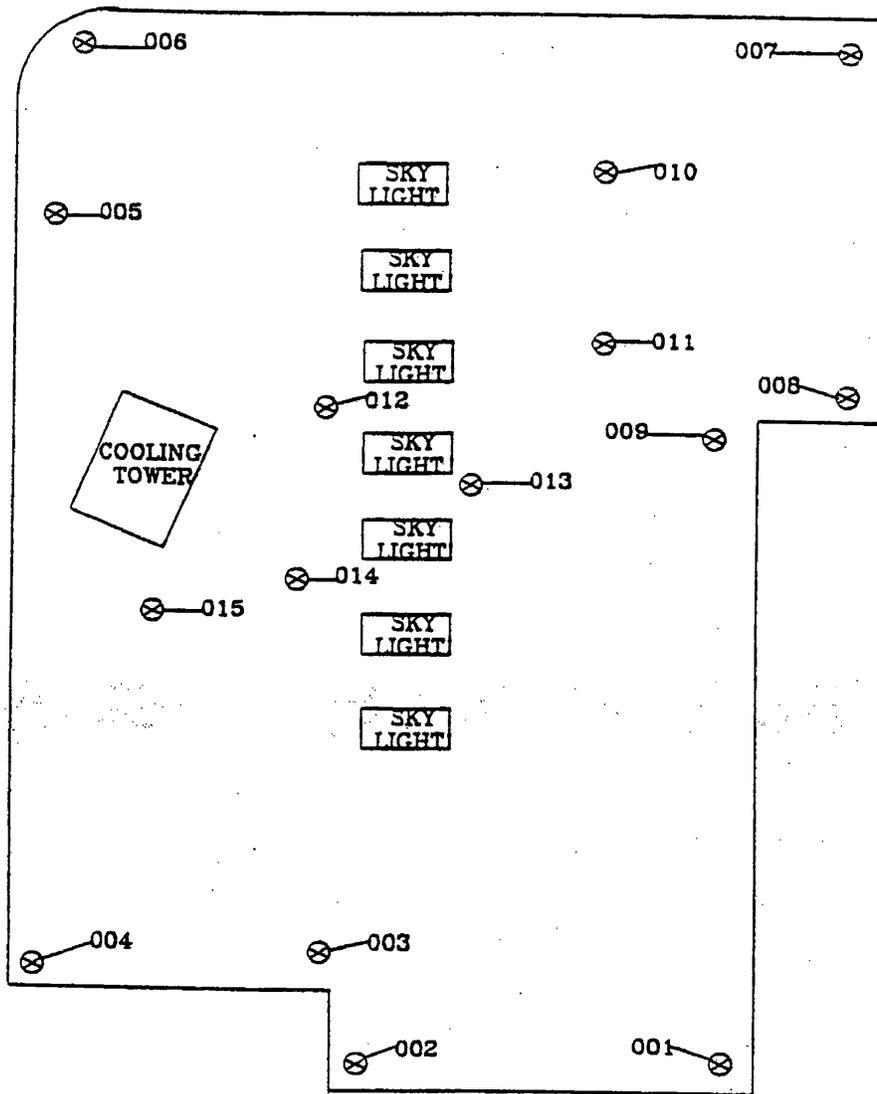
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APPENDIX C

HOMOGENEOUS ACM SAMPLE LOCATIONS



ROOFING SAMPLES

- ⊗ NON-ACM
- ACM

NOT TO SCALE

PROJECT NAME:

THE RREEF FUNDS  
VACANT INDUSTRIAL BUILDING

PROJECT NO.:

43-07-9302112

DATE:

4/18/93

 ATEC Environmental  
Consultants  
Irvine, CA

TITLE:

FIGURE 1  
SAMPLE LOCATION